De Anza College
Instructional Planning and Budgeting Team

Biological, Health and Environmental Sciences
& Workforce Education Division

PROGRAM REVIEW
2008-20011 Update

Submitted March 30, 2009

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TAB 1

Biological, Health and Environmental Sciences
& Workforce Education Division

Division Summary

WRITERS FOR 2008-2011 UPDATE.

Margaret Bdzil, Coordinator, Perkins Act and Workforce Education (Career Technical Education)
Judith Clavijo, Department Chair, Nursing
Pat Cornely, Executive Director, Kirsch Center for Environmental Studies
Daniel Dishno, Supervisor, OTI
Pat Hassel, Program Coordinator, Health Technologies
Carmen Perieda, COOP Coordinator
Julie Phillips, Morgan Family Department Chair, Environmental Studies
Stephanie Sherman, Dean, BHES & WE Division
Doris Spanggord, Chair, Department of Biology
Debbie Wagner, Program Coordinator, Medical Laboratory Technician Program

NOTE: All Division faculty and staff were invited to participate via their program/department meetings, through their coordinators/chairs. Specific contributors are noted in some of the program reviews.

PROGRAM UPDATES:

Changes in Division organization since last update (2006): None

Changes in Division physical space since last update (2006): Relocation of COOP office to E-35. COOP part-time faculty 'pod' remains located in the Science Center faculty area, SC-1.

Problems continue with both the new buildings and the remodels. Punch lists and 'do over' lists exist for all spaces in the Division.

DEPARTMENTS AND PROGRAMS - Updates: Attached – see table of contents for specific tabs.

Overview:

The Biological, Health, and Environmental Sciences and Workforce Education Division is very diverse and consists of the Biology Department (which includes Biology, Health and Nutrition and the Science Center), the Environmental Studies Department (which includes Environmental Studies and Environmental Sciences and the Kirsch Center for Environmental Studies), Health Technologies (which includes several health technology programs and the medical laboratory technician program), the Nursing Department (with more than 300 students competing to enter each quarter), the Occupational Training Institute (OTI) which is the District wide student centered support service for the students within our categorical programs, the Cooperative Education program, (which has District wide elements of coordination), and the Workforce Education (Career and Technical Education) program (which helps provide support and grant funds for our CTE programs) and also has District wide coordination required. Our programs have laboratory and program facilities as well as classrooms across the campus from the Kirsch Center to the Science Center, the S Quad and the OTI complex. On average, we have 140

individuals (full time faculty, part-time faculty, staff) each quarter as well as numerous registered volunteers.

GREATEST NEEDS:

As you will note from reading the program review documents from all our departments and programs, we need more faculty, more staff and more B budget. Since about the 1999-2000 year, we have continued to lose funds and staff with every budget decrease. None has been restored. We are at a 'bare bones' level of operation and only through the dedication and professionalism of all our members, do we continue to serve our students in the best possible way. We are still growing in enrollments, WSCHs, and productivity (with the slight decrease noted in Winter 09 and later [in WSCHs and productivity] as an artificial result of the College wide loss of TBA hours). Our enrollments continue to increase as do the number of sections we offer.

The expectation that we can all just continue to do more and more with less and less is demoralizing and unrealistic. We are at the point where we will not be able to sustain our efforts at the current level, given anticipated budget and personnel decreases. We are not alone in being at this level. Every where one looks at our College, one sees the visible signs of not having enough personnel. Our grounds are in disarray, our buildings lack for custodial services; there is not enough staff to help students in many of the student support areas or in our Division offices. Without funding support for our critical personnel and equipment needs, we will lose our standing as one of the best community colleges in the nation. We are already precariously close to doing so now.

TAB 2

PROGRAM REVIEW 2008-2011

Division: Biological, Health and Environmental Sciences & Workforce Education
Department or Program: Biology Department
Name and Title of Preparer(s):   Doris Spanggord (Chair, Biology Department), and the following Biology Department faculty: Anita Kandula, Brian McCauley, Bruce Heyer, Jeff Schinske, & Anna Miller.
In providing responses in the following areas, **please utilize the quantitative data available in the Program Review Enrollment Data Document and the Budget Document.**   For the purposes of the Program Review, both departments and programs will be referred to as "program."

I.   **Description and Mission of the Program**

Which area(s) does this program considerably address (check all that apply):

___Basic Skills   __X_ Transfer   __X_Career/Technical   _X__Other (describe)

A. Provide a brief description of the program including any services provided and the program's mission.
   1. The mission of the Biology Department is to transfer students majoring in Biology to a four-year college to complete their Biology degrees and enhance scientific literacy in the general population through General Education and pre-requisite courses in support of the rest of the college . The Department has established contracts with many of the four year public colleges in the region that guarantee student transfer if the student adheres to the rules of the contract. Biology's courses in general have an 89% transferability rate compared to the 72% overall college totals.
   2. The Biology Department provides laboratory science general education courses for students majoring in other disciplines at De Anza College as well as providing prerequisite courses in support of De Anza's Nursing Program and other health care programs such as pharmacy, optometry, respiratory therapy, physician's assistant, veterinary medicine and many more.
   3. The Department offers a variety of nutrition and health courses that are designed to keep students aware of the newest ways to stay physically fit and healthy.
   4. The Biology Department has established a contract with the Red Cross Chapter in the area that enables the training and certification of students as well as faculty in CPR and AED.
   B. Provide a summary of the program's main strengths.
      In our community and beyond there is high student demand for De Anza's Biology classes due to the highly favorable reputation of instructors and their teaching styles. Also, Biology has increased its retention rate to 91% as compared to the college retention rate of 90% and its success rate of 79% matches the success rate of the college. According to the De Anza College Program Review statistics, the enrollment in Biology has remained, on the average, fairly constant at approximately 5,200 students per year since environmental studies formed its own department and eventually built their own building beginning Fall 2004. Our enrollment is lower "artificially" since the new ES Department contains courses formally offered under

biology. Both WSCH and productivity show decreases that are not due to significant changes in enrollment but rather are due to the artificial drop caused by the removal of TBA hours.

An additional and critical strength of the biology program is providing general education courses, both lecture and laboratory, for students throughout the campus that are majoring in disciplines other than biology.

C. Provide a summary of the program's main areas for improvement.

The most important area for improvement that needs to be addressed in the Biology Department is the lack of sufficient full time faculty in the Department. At this time, there are 10 full time faculty members and approximately 18 part time faculty in the Department to teach at least 5,200 students. The high number of part time faculty fragments the goals of the Department due to lack of participation in the business side of the Biology Department.

The Biology Department's 6 science laboratories, 2 in one building and 4 in another, continue to be serviced by only two laboratory technicians from 8:00AM – 8:00PM on MTWTH and from 8:00AM – 5:00PM on Fridays. Our Saturday course, Biology 10, also includes a laboratory, but we are unable to provide any laboratory support for the instructor or students. The students and instructors suffer from the insufficient attention given their laboratory needs. We need a third laboratory technician to complete this very important job. This is a critical need.

For increased equity and student success, the Science Center Learning Center should be available to students weekdays, nights, and weekends to support student success in the weekend college. At this time, the Center is not available on the weekends

D. What are your expected outcomes (such as learning outcomes, transfer, career goals, certificate and degrees) for students in your program?

The expected outcomes of the Biology Department include the following:

1. **Learning outcomes :**
   - Critical thinking: through the teaching of the scientific method, students are taught to challenge and question established old and new ideas.
   - Persistence: students gain personal confidence in their scientific/academic abilities by learning to overcome confusion with complex biological content.
   - Awareness: students gain an awareness of the Biological World and understand the significance of interrelationships between living organisms.
   - Reflection: as students reflect on study skills demonstrated in our Biology classes, they discover new ways of learning.
   - Tolerance: students learn tolerance as they work productively with students of different backgrounds, race, and nationalities to solve challenging biological problems.
2. **Transfer/degree/career goals**: One of the main missions of the Biology Department is to prepare all of our biology majors to transfer to the four year college of their choice so they can fulfill their goal of obtaining a Bachelor's degree in biology. An AS degree in biology is also available to students who want to enter the field of Biology with limited but valuable knowledge and abilities that are primarily utilized in the field of laboratory technology.

II.   **Retention and Growth**
    A. How has the program responded to the institutional goal of increased access, growth and retention? (Include the number of students enrolled in the program and the retention rate over the last three years.)

    According to the data provided by the De Anza College Program Review Sheet and summarized in **Table I** below, the Biology Department has responded effectively to this institutional goal. Our retention rate for Biology students has increased from 89% to 91% over the indicated three year period. The number of students in the program has decreased from 5,410 to 5,127. This decrease can be attributed to the transfer of former biology courses to the Environmental Studies Department.

Table I. Number of Students and Retention Rate for the years 2005-2008

Year	#of students in program	Retention rate
2007-2008	5,127	91
2006-2007	5,154	88
2005-2006	5,410	89

    The Biology Department continues to respond to the institutional goal of access, retention, and growth by providing the following to our students:
1. Tutors both inside and outside the classroom
2. Basic skills labs for beginning biology courses
3. A faculty that is diverse in ethnic background
4. A Science Center Resource Center equipped with two mentors, computers and day and night access
5. Adding new sections of courses that are in high demand such as Biology 6A,B, &C, Nutrition 10, and others
6. Offering distance learning courses where appropriate
7. Offering weekend courses – Biology 10
8. Smart classrooms in place throughout both lecture halls and laboratories
9. Faculty attendance at new student open houses throughout the year
10. State of the art laboratory equipment.

  B. How has the program responded to the institutional goal of increased access, growth and retention <u>specifically for the identified targeted populations of African Ancestry, Latino/a, and Filipino/a students</u>? (Include the number and percentage of the program's enrollment that was made up of the targeted populations and the retention rate of the targeted populations over the last three years.)

    According to the data provided by the De Anza College Program Review sheet and summarized in **Table II** below, the Biology Department has responded effectively to this institutional goal specifically for the black, Hispanic, and Filipino students. We have increased the population of black students from 192– 197 students which is an increase from 3.6% to 3.8% of the student population. The retention rate has remained constant for black students in the Biology Department.

The population of Filipino students has decreased in the Biology Department from 511 to 425 but we have increased their retention rate from 89% to 92%. To address the concern of a decrease in Filipino students in our program, Biology faculty attend outreach activities whenever possible.

We have been most successful with the Hispanic population as we see that the population of Hispanic students over the last three years has increased from 586 to 597 and we have increased their retention rate from 84% to 88%.

To increase the retention and growth of these populations of students, the Biology Department instructors are utilizing a variety of teaching methods including power point formats, video/DVD, website locations for lecture materials, study questions and other classroom materials, e-mail and voice mail access for student's questions and other interactions. There are one on one tutoring opportunities available to these students as well as office hour interaction with their instructor.

Table II. Targeted Groups: De Anza College Program Review

Black	# of Students in Program	% in Program	% Retained
Fiscal Year			
2007-2008	197	3.8	85
2006-2007	175	3.4	81
2005-2006	192	3.6	85
Filipino	**# of Students in Program**	**% in Program**	**% Retained**
Fiscal Year			
2007-2008	425	8.3	92
2006-2007	524	10.2	87
2005-2006	511	9.5	89
Latino	**# of Students in Program**	**% in Program**	**% Retained**
Fiscal Year			
2007-2008	597	11.6	88
2006-2007	549	10.7	81
2005-2006	586	10.8	84

C. The Statewide Basic Skills Initiative defines "basic skills" as English, mathematics, reading, writing and ESL skills. In what ways does your program address the basic skills needs of students? For programs that do not directly address basic skills, how does the lack of basic skills impact student success rates for your program?

Biology instructors can provide their students with basic skill labs (Skills 132).

Lack of basic skills, especially regarding the ability to speak, read and write the English language adequately, can make learning science very difficult because science itself is a second language to students who speak, read, and write English fluently.

III. **Student Equity**

A. What progress or achievement has the program made towards decreasing the student equity gap? (Include student success rates for targeted populations compared with other students over the last three years.)

The Biology Department has maintained consistency in addressing the student equity gap. The College totals indicate a 74% success rate for Filipinos in comparison to biology's success rate of 77% for this group. The areas where biology must continue to act to decrease the gap are with the black and Hispanic groups. Our success rate for black students is 69% compared to the College totals of 78%. Our success rate for Hispanic students is 71% compared to College totals of 75%.

B. In what ways will the program continue working toward achieving these goals?

The Biology Department will continue to work towards decreasing the equity gap by continuing to provide students with tutors inside and outside the classroom, utilize state of the art technology in our smart classrooms, as well as a variety of teaching methods including video/DVD, web site locations for course information such as power point presentations, and e-mail access for students to interact and ask questions any time they feel the need.

The SC Resource Center is now open and available to students in the evening Monday through Thursday.

C. What challenges exist in the program in reaching such goals?

The challenges that exist in the Department in reaching these goals are mainly budget deficiencies, lack of sufficient full time faculty, and other support personnel. More full time faculty are needed in the Biology Department to address the problems of student retention, success and equity. The Department has 10 full time faculty members to address the problems of over 5,000 students. Most part time faculty do not have the time to get involved in Department "business" nor are they paid for that if they did.

Budget problems always exist in the Biology Department because of the high cost of "state of the art" equipment and supplies. It is absolutely necessary that we have the latest equipment and supplies to train our students if we expect them to be competitive in the market place. Unfortunately, to add to this need, the price of this equipment and supplies continues to increase. At this time, with our budget at the current level and with the lottery funds included, we can do the job. If reductions in our budget come about, our students will suffer.

The Science Center Resource Center must stay open both day and evening times. It

would be exceptional if we could keep it open on the weekends also since we have reinstated the weekend college. Our tutors need some place to meet with our students. Our students need a place to study, take tests, and meet with tutors.

IV. **Budget Limitations** (Please be specific in your responses.)

A. Identify any limitations placed on the program based on limited funding. What increases in resources are critical to the program and what are the consequences of continued limited funding on the program?

1. Limited funding will prevent the Department from hiring more full time faculty. This is a critical need.
2. SC Resource Center will not remain open both day and evenings preventing students from access to computers, tutors, and reference materials put there by instructors for students use.
3. The Department's six science laboratories, 2 in one building and 4 in another, will continue to be serviced by only two laboratory technicians from 8:00AM – 8:00PM. This is a critical need. Students and instructors suffer from insufficient attention given to their laboratory needs.
4. There would be difficulty or inability to purchase "state of the art" equipment and supplies for our students. The effect would be that our students would be poorly prepared to compete for jobs in industry due to the lack of familiarity with "state of the art" equipment and supplies and the inability to use that equipment and supplies.
5. The "equity gap" will remain open. This is a critical need.

B. Describe the consequence to students and the college in general if the program were eliminated or significantly reduced. Please be specific.
1. The "equity gap" would remain open.
2. Over 5,000 students per year would be denied a low cost, outstanding, lower division, college program that leads to transfer to a four year college and a path to a rewarding career in biology.
3. Low cost certification in CPR and AED via the Department's agreement with the Red Cross would end.
4. The other college programs would no longer have biology's GE science lab courses to complete the lower division GE course requirements for their students.
5. Valuable and up to date information concerning nutrition and health would not be available to our students and the community.
6. De Anza's Nursing Program would need to look else where for their students to complete the prerequisite courses required for their program, therefore losing control of the quality and content of these courses.

V. **Additional Comments (optional):** What additional information is important to consider when reviewing the budget of your program for possible reductions? You may include any or all of the following, or other information.

- **Strategic Planning Initiatives (Community Collaborations, Cultural Competency, Outreach, and Individualized Attention for Retention):** Describe any other Strategic Planning Initiatives your program has addressed.

- **Relationships with Other Programs:** Describe any partnerships or collaborations that the program is actively engaged in, which reduce costs and/or improve service delivery.

- **State and Federal Mandates:** Describe any State or Federal mandates that directly impact the program.

- **Trends (such as enrollment, certificate and degrees conferred, transfer rates, job placement, etc.):** Describe any positive and/or negative trends in the program.

- **Comparable Programs at other Institutions:** Provide any information that you have that would allow for a comparison of the program to similar programs at other institutions in the State.

  1. Members of the Biology Department continue quarterly Department meetings, e-mail, and voice mail contact. Requirement of use of fhda.edu e-mail address is in place.
  2. The Department is faithful in informing students of possible internship opportunities in industry such as the past NASA internships. Also, one of our newly tenured faculty members, Bruce Heyer, has developed a partnership with the Stevens and Permanente Creek Watershed Council (SPCWC). This partnership has enabled De Anza to house and use equipment for monitoring water quality in the watershed. This collaboration has also drawn students into volunteering to help with water quality monitoring, enabling them to learn a variety of valuable field and laboratory techniques. He also brought in a representative of the California State Water Resources Board to train faculty and students in the use of equipment and state standards of testing so that data collected by the De Anza faculty students can be used by the State in their research. This offers the Department the opportunity to use course laboratory exercises to collect meaningful data and participate in state-wide research that benefits the community and the environment. We are also constantly working with industry, governmental and non-governmental organizations on field activities.
  3. The Biology Department participates in numerous outreach activities. In May of each school year, representatives attend the WACAC Spring College Fair at Mission College in San Jose where we meet with high school students from all over the area to inform them about the Biology Department and answer their questions concerning our programs. We also attend New Student and Parent Open Houses when possible.
  4. Mary Donahue, the instructor for CPR and AED, serves by invitation on the instructor trainer committee of the Silicon Valley Chapter of the American Red Cross.
  5. Relationships with other programs:
     a. De Anza College Biology Department has aligned its Nursing Program prerequisite courses, Biol 40A,B,&C and its biology major's series

courses, Biol 6A,B,&C with Foothill College to provide flexibility in scheduling for students. The course alignment involves curriculum and close but not complete alignment of prerequisites.

b. Chemistry – scheduling to avoid conflicts and allow students to complete transfer requirements in a timely fashion that honors their transfer contract agreements with the four year college of their choice.

c. The Biology Department provides prerequisite courses for De Anza's Nursing Program (Biol 40A,B, &C, Biol 45, Biol 26)

d. College wide support in providing general education science lab courses.

e. The Biology Department team teaches the health and fitness course HLTH 51 with the Physical Education Department.

f. The Biology Department has established contracts with many of the four year public colleges in the region that guarantee student transfer into their biology degree program if the student adheres to the rules of the contract.

TAB 3

PROGRAM REVIEW 2008-2011

Division: Biological, Health and Environmental Sciences & Workforce Education Division

Department or Program: Cooperative Education Program

Name and Title of Preparer(s):   Carmen Pereida, Program Coordinator

In providing responses in the following areas**, please utilize the quantitative data available in the Program Review Enrollment Data Document and the Budget Document.** For the purposes of the Program Review, both departments and programs will be referred to as "program."

I.   **Description and Mission of the Program**

Which area(s) does this program considerably address (check all that apply):
_ Basic Skills, _X_ Transfer, _X_Career/Technical, _X Other (Personal/Professional Development.)

A**.** Provide a brief description of the program including any services provided and the program's mission.

The mission of the Cooperative Education Program (Co-op) is to combine academic learning with workplace application, thereby, empowering students to learn and demonstrate 21st century work skills. These skills include critical thinking; improving basic writing skills; learning communication techniques; building teamwork; improving customer service; use of technology, and overall human development. The student, with the approval of the student's instructor, and job supervisor writes learning objectives that are focused on experiential learning. These learning objectives allow the student to grow professionally, gain new skills, improve on current skills and explore core competencies that are academic and career related.

Co-op is a work experience program that provides CSU transferable college credit to working students and to students who volunteer in non-profit organizations. Students explore and apply academic theories in their daily work environment. Co-op units are 100% applicable to students' certificates and degrees and count towards maintaining full-time student status. Additional services/benefits to students include the balance of school and work, which can lead to improvement of their grade point average (GPA); using units for eligibility purposes for receiving financial aid and other support services; international students may use it to work off-campus and earn income as well as receive practical curriculum training; and overall, students use it for career exploration and job readiness.

B.   Provide a summary of the program's main strengths.

The main strengths of this program are: its flexibility and individualized instruction; its coordination of academic and student services; its range in student diversity, and the development of workability skills.

The student population of this program consists of: single parents; low-income students; students with disabilities; vocational students; older adults; students of color; re-entry students, students in probationary status, and transfer bound students. The partnership between Co-op and other De

Anza College student support programs becomes a network system for students to receive support in academics, retention, and workforce skill development.

C. Provide a summary of the program's main areas for improvement.
 There are three main areas of improvement for the Co-op program.
1) The program's operational budget is $1,000.00 for the year. This amount is not enough to cover the costs of basic office supplies, student outreach, professional development and training, and travel costs incurred by faculty while doing worksite visits as mandated by Title V.
2) One classified employee maintains the program at all times. No adjustments are made in personnel as the program expands and grows.
3) The program is constantly being relocated to different Divisions and physical office locations. This creates confusion for students.

D. What are your expected outcomes (such as learning outcomes, transfer, career goals, certificate and degrees) for students in your program?
The program's expected outcome is to continue performing at its current level. The program is currently under review and the expectations may change in the near future.

For many years this program has been in alignment with the institution's core values and competencies. Students are expected to develop greater communication skills with their instructor, work supervisor, and office personnel. Students are expected to use critical thinking skills when addressing a problem and creating their individualized learning objectives. Learning objectives are based on the **SMART** *(Specific, Measurable, Action Oriented, Realistic, and Timely)* principle. Students are expected to use technology while doing research in career development.

Year	Transfer Rate	Career Goal	Certificate & Degree
2005/06	40%	77%	100%
2006/07	38%	76%	100%
2007/08	33%	75%	100%

II.   **Retention and Growth**

A. How has the program responded to the institutional goal of increased access, growth and retention? (Include the number of students enrolled in the program and the retention rate over the last three years.)
The Co-op program does not have a problem with access, retention and success rates. However, the number of instructors in the program directly impacts enrollment. It will continue to decrease as instructors continue to retire or accept fewer students.

Year	Enrollment	# Of PT Faculty	Office Coverage
2005/06	791	9 (Including 3 NASA)	1 Classified employee
2006/07	499	6 (Began accepting fewer student)	1 Classified employee
2007/08	469	5 (+ 3 new/accepting fewer students)	1 Classified employee

B. How has the program responded to the institutional goal of increased access, growth and retention specifically for the identified targeted populations of African Ancestry, Latino/a, and Filipino/a students? (Include the number and percentage of the program's enrollment that was made up of the targeted populations and the retention rate of the targeted populations over the last three years.)

The Co-op program responded to the institutional goals of increased access, growth and retention by getting involved in the development of the Strategic Planning Initiatives and helped with the planning and support of the outreach efforts to address the needs of the identified targeted population. Please review the strategic planning initiative for details of how the program addressed the following: **Community Collaborations**, **Cultural Competency, Outreach, and Individualized Attention for Retention.**

Year	African American Access	African American Success & Retention	Latina/o Access	Latina/o Success & Retention	Filipino/a Access	Filipino/a Success & Retention
2005/06	13% 106 / 791	90% / 94%	20% 155 /791	90% / 90%	5% 46 / 791	91% / 93%
2006/07	18% 89 / 499	90% / 97%	17% 87 / 499	94% /94%	6% 29/499	90% / 93%
2007/08	13% 61 /469	93% / 98%	20% 96 / 469	87% / 88%	7% 32 / 469	97% / 94%

C. The Statewide Basic Skills Initiative defines "basic skills" as English, mathematics, reading, writing and ESL skills. In what ways does your program address the basic skills needs of students? For programs that do not directly address basic skills, how does the lack of basic skills impact student success rates for your program?

This program does not directly address student basic skills. However, when students submit their two written reports to their instructors, the instructor will review and provide guidance to students, either by correcting their papers or sending students to the writing center. In addition, this individualized instruction allows instructors to communicate with students to determine extra needs and fears in subjects such as math, ESL or basic skills. Students are referred to the appropriate centers for help.

III. **Student Equity**

A. What progress or achievement has the program made towards decreasing the student equity gap? (Include student success rates for targeted populations compared with other students over the last three years.)

The Co-op program does not have a student equity gap. The enrollment is diverse and reflective of the general make up of De Anza's student body. The Co-op program collaborates, coordinates, and supports the efforts of various student equity programs. Many of the Co-op students are part of various programs that are addressing the inequities of the low income, underrepresented/underserved student population. (See attachment). However, to address the problem of digital divide, the program created different methods for delivering its student orientation. Students can view a Co-op orientation via streaming video, a power point presentation, or a handbook.

B. In what ways will the program continue working toward achieving these goals?
The program will continue working towards achieving these goals by paying attention to students needs and maintaining its current collaborative practices. The office will continue to maintain an open door policy and flexible office hours to meet the needs of our working students. The program will continue to collaborate and support the campus outreach efforts and the various equity programs.

The program would like to provide diversity, skills and technical training workshops to its instructors.

C. What challenges exist in the program in reaching such goals?
The main challenge the program faces is lack of resources for appropriate instructor payment, staffing, advertisement, and training.

IV.   **Budget Limitations** (Please be specific in your responses.)

A. Identify any limitations placed on the program based on limited funding. What increases in resources are critical to the program and what are the consequences of continued limited funding on the program?
The yearly Co-op budget is $1,000.00, which it is not enough funding to cover the program's basic costs. Travel costs incurred by the mandated Title V worksite visits are currently paid by the BHES Division, which means the Co-op program is not self-sustaining. If the BHES Division decides not to pay these costs and the Co-op program does not have the funds either, the first consequence will be that instructors will not get paid for travel. In turn, the instructors may refuse to do the worksite visit, which leads to a secondary consequence and De Anza College will not be in compliance with Title V mandates. Further consequences will begin to trickle down.

B. Describe the consequence to students and the college in general if the program were eliminated or significantly reduced. Please be specific.
This program cannot be significantly reduced since it operates with minimal staff and resources – it can only be eliminated. The program operations are done with only one classified person assuming various responsibilities; five part-time faculty work with students.

The ethnic make up of the program during the 2007/08 school year was 26% Asian, 13% African American, 7% Filipino, 20% Latino, 2% Pacific Islander, 22% White, 3% other, and 6% unrecorded. 40% of Co-op students are transfer bound. 52% of Co-op students are at risk, underrepresented and underserved. Students under 19 years old and up to 24 years, constitute 64% of the program. Students between the ages of 25 to 29, constitute 19 % while 12% of students are between the ages of 30 to 39, and 5% are over 40 years old.

Based on the ethnic make up, transfer bound, at risk students, and given the age group of Co-op students, it stands to reason that consequences to these students are many:
1) By eliminating Co-op, the college would be targeting access, retention, success and equity of the identified student population it is trying to retain. The College would be working against its strategic initiatives.

2) Transfer bound students would not have access to units that can help them with their GPAs or transfer.
3) Many of the at-risk students depend on financial aid to help them get though college. Without co-op units, these students will not receive their awards. In addition, some of these students are remedial students while others are on probationary status. Co-op units help them balance their academic courses with work; thereby, assisting them to stay in school.
4) Young students are working in entry-level positions while the older students come back for re-training. Co-op helps them develop their professional skills. By doing their course work, students experience various organizational perspectives; therefore, they get better understanding of their college majors and/or career goals. The consequences can be an unprepared workforce and more undecided students.
5) International students would not be allowed to do practical training as a part of their curriculum.

Co-op units are WSCH generating units. The consequence to the College is that there will be fewer full time students if the program is eliminated; therefore, less WSCH. In 2007/08, the Co-op program generated a WSCH of 572. The combined total faculty salary was $30,000.00 less than the cost of one full time faculty employee.

V.   **Additional Comments (optional):** What additional information is important to consider when reviewing the budget of your program for possible reductions? You may include any or all of the following, or other information.

- **Strategic Planning Initiatives (Community Collaborations, Cultural Competency, Outreach, and Individualized Attention for Retention):** Describe any other Strategic Planning Initiatives your program has addressed.

Community Collaborations:
Internal: Counseling, EOPS, Financial Aid, International Student Program, DSP, PUENTE Project, and Co-op collaborate to support students' needs through personal referral processes. Students need units to complete degrees and/or transfer, maintain full time status, pull themselves out of probation, have the ability to work off campus, and balance school, work, and life.
External: Collaborations between Foothill College and De Anza College Co-op programs to streamline processes, procedures, faculty assignments, and meeting Title V mandates.

Outreach:
The Co-op program has participated in most outreach events scheduled by the outreach office including Student/Parent nights. In collaboration with PUENTE, LEAD, and Outreach, the Co-op program was part of the planning process for bringing Latinos and African American students to campus. In collaboration with groups mentioned above and with the Chemistry Department Chair and the Biology Department Chair, Co-op provided science information and a tour of the science areas to underrepresented high school students.

Individualized Attention for Retention:
The mission and philosophy of the Co-op program is individualized attention; therefore it is what we do on a daily bases. In doing so, the program has maintained an average retention rate of 90%.

- **Relationships with Other Programs:** Describe any partnerships or collaborations that the program is actively engaged in, which reduce costs and/or improve service delivery.

The Co-op Program collaborates closely with many of the Student Services Programs, such as Counseling, EOPS, International Students and others. While these collaborations do not reduce costs, they provide better student services and delivery methods. All programs become knowledgeable of each other's services and are able to direct and assist students.

- **State and Federal Mandates:** Describe any State or Federal mandates that directly impact the program.

Title V mandates a worksite visit, which has direct impact on the program budget.

TAB 4

PROGRAM REVIEW 2008-2011

Division: Biological, Health, and Environmental Sciences and Workforce Education

Department or Program: **Environmental Studies Department**

Name and Title of Preparer(s): Julie Phillips, Morgan Family Chair in Environmental Studies

In providing responses in the following areas**, please utilize the quantitative data available in the Program Review Enrollment Data Document and the Budget Document.**   For the purposes of the Program Review, both departments and programs will be referred to as "program."

I.   **Description and Mission of the Program**

Which area(s) does this program considerably address (check all that apply):

___ Basic Skills   __X__ Transfer   __X__Career/Technical   __X__Other
[Community and civic engagement relating to environmental policy and process.]

A. Provide a brief description of the program including any services provided and the program's mission.

1. Objectives to focus our work from 2009-2011:
*   Increase the success of underrepresented students and life long learners.
*   Continue to focus on course/program utilization of technology enhanced instruction and project-based learning (community and civic engagement)
*   Continue to find support for our program activities as we continue to train the workforce needed for a sustainable society in the 21st century

2. **Mission:** The Mission of the Environmental Studies Department at De Anza College is to provide students with an environmental stewardship foundation, knowledge of ecological, social and economic concepts, and an awareness of their roles within a sustainable society.

B. Provide a summary of the program's main strengths.

We continue to implement a **long-term process** to target all students (with a focus on underrepresented and at-risk students) in an effort to increase enrollment and increase retention and success through a variety of strategies including technology-enhanced instruction. The completion of the Kirsch Center for Environmental Studies (KCES) – a result of 17 years of planning – is an integral component of a new teaching and learning strategy. Our efforts include the following strategies:

*   The ES Department has created over 80 courses in **Environmental Sciences (ESCI)** and **Environmental Studies (ES)**. The ES Department offers general education (GE) courses (ES 1, ES 2, ES 3, ESCI 19, ESCI 20 and ESCI 30; as well as UC/CSU transferable elective courses ESCI 1 and ESCI 1L). In addition we offer over 60 courses in 4 program areas: Biodiversity Specialist (transfer); Energy

Management and Pollution Prevention (vocational); Pollution Prevention and Climate Policy (vocational) and Environmental Stewardship including a Certificate in Wildlife Corridor Technology. The 3 vocational programs offer both certificate and AA degree programs for our students.

- **The following courses: ES 1, 6, 62a, 62b, 62c, 62d, 69, 70, 71, 72, 73, 74, 75, 78, 79, and 95 courses** are all available through our mediated learning program. Video stream course options for students were available in Winter 2009 including ESCI 1, ES 65, 66, 67 and 68. It is our goal to have most of our ES and ESCI classes.
- **ES 65, 66, 67 and 68 stewardship classes** are core classes for new ES Stewardship AA degree program; we launched our ES Stewardship Program in Winter Quarter 2006 and were able to recruit over 30 students into this new program.
- **For the 2009/2010 catalog the 3 vocational AA degrees and 6 ES certificates** were revised to meet changing needs of the workforce & put De Anza College on the cutting-edge for the 21st Century sustainability trends.
- **For the 2009/2010 catalog 15 new courses** were approved including Central Coast Wildlife Corridor Coalitions field studies courses **(ESCI 82-ESCI 88), ESCI 90, 91 and 92** (field studies courses offered in our local county parks and open space areas), and **ES 63 (Agenda 21), ES 64 (Introduction to AB 32 – California's Global Warming Solutions Act of 2006) and ES 93 (Sustainability Across Curriculum).**
- **ESCI 61 and ESCI 63, new photovoltaic technology courses** were offered for the first time this academic year and the student response was very positive.
- **Environmental Education** is a major focus for our department with revised courses **ES 91x and 91z** offered in **2009.** We continue to target K-12 students and instructors in our outreach program efforts.
- **Flexible scheduling** continues to be a strategy implemented in Environmental Studies and Environmental Sciences course offerings to meet the changing needs of our students

C. Provide a summary of the program's main areas for improvement.
- We cannot meet the current demand for assistance in our 4 program areas because of the substantial growth in students and no growth in our faculty and staff support team.
- We are losing the opportunity to assist more students in actually completing certificate and degree programs as well as transfer opportunities in ES because of the demand and lack of trained staff
- There is an increase in the assistance required by students which influence student learning and success – which is beyond the classroom

D. What are your expected outcomes (such as learning outcomes, transfer, career goals, certificate and degrees) for students in your program?

- Student Learning Outcomes: Train over 1,500 students per year on how their decisions including use of energy and natural resources, affects the environment; train over 1,000 students per year on the biological, ecological and stewardship principles as a foundation upon which to base decisions; provide over 100 students field internships each year to help preserve the

ecological and biodiversity legacy of California by using information gathering techniques used in the scientific method; train over 1,00 students on human history, our relationship to the environment and how that role has evolved over time; train over 100 students per year on applying environmental laws, regulations and policy and its application to local case studies; train over 1,500 students on techniques used in political participation at the local, state, and federal levels by at attendance at local government meetings; include over 100 student per year in experience, participation and exposure to actual, career-related opportunities and internships in energy, biodiversity, pollution prevention and stewardship.

Transfers, certificates/degrees and career goals:
- Goal: to transfer at least ES/ESCI 500 students per year from our ES program to the over 16 ES-related programs in the CSU and UC systems
- Goal: to continue outreach to hundreds of high school and returning students to complete (at least 200 per year) AA degrees or certificates in our 3 program areas or considering transferring in the environmental fields
- Goal: to continue to work with resource agencies, nonprofits/foundations, government entities, business and industry and other academic institutions to train the 21st century workers in green careers including energy management/climate policy, environmental compliance/pollution prevention, environmental stewardship/wildlife corridor technology, biodiversity specialist and environmental education

II. **Retention and Growth**

A. How has the program responded to the institutional goal of increased access, growth and retention? (Include the number of students enrolled in the program and the retention rate over the last three years.)

The ES Department Retention % has increased from 90% in 2005 to 92% from 2006 through 2007/008. This demonstrates that our classroom strategies to enhance the learning experience from small group work, variety of activities, community-based learning case studies and teamwork is working in a facility that models energy efficiency, and resource conservation and stewardship is working! The Cheeseman ESA has provided an incredible outdoor learning experience for our students with a hands-on approach to the sciences. The learning max areas and other special learning spaces at the Kirsch Center have also enhanced student learning providing opportunities to review material, course content, lecture and labs and work in teams. These strategies are working for students as our **WSCH has increased from 7,233 in 2005 to 14,905 in 2007.**

B. How has the program responded to the institutional goal of increased access, growth and retention specifically for the identified targeted populations of African Ancestry, Latino/a, and Filipino/a students? (Include the number and percentage of the program's enrollment that was made up of the targeted populations and the retention rate of the targeted populations over the last three years.)

We continue to provide a learning environment that supports all De Anza students including African ancestry, Latino and Filipino student by the following efforts:

- inclusion of basic skills and effective learning strategies in all our introductory environmental studies/sciences courses (including Cornell Method of Note-taking, journal entries and review, study sessions, small group projects, hands-on learning field experiences, interactive learning support through our mediated learning courses, and teacher training workshops)
- providing basic skills/effective learning strategies course (ES 55) to all our students
- providing in-class student assistants (as funds are available) and student mentors for all students as well as targeting special populations
- providing faculty, staff and student mentor outreach at our Stewardship Resource Center

C.   The Statewide Basic Skills Initiative defines "basic skills" as English, mathematics, reading, writing and ESL skills. In what ways does your program address the basic skills needs of students? For programs that do not directly address basic skills, how does the lack of basic skills impact student success rates for your program?

- Tutorial support through our mentorship program
- Provide internship opportunities under the leadership of our faculty and staff
- Focus on effective learning strategies including note-taking, journal writing, and group presentations in all our classes
- Recording student presentations for student to review for future group work
- We provide ES 1 and ESCI 19 student packets which include effective learning strategies for students (goes to over 600 students per year)
- Teach ES 55, Effective Learning Strategies course, to our students
- Provide internship opportunities to students where they collect, record and analyze field data on biodiversity projects as well as energy management
- Provide assignments in energy-related courses including energy auditing and analysis which exposes students to applied use of math and related disciplines

III.   Student Equity

A.   What progress or achievement has the program made towards decreasing the student equity gap? (Include student success rates for targeted populations compared with other students over the last three years.)

The ES Department course participants represent the diversity of the De Anza College student population. Through our work with VTEA over the past 15 years we have continued to target and serve underrepresented student populations. The ES program review data shows that students from the various ethnic, gender and age groups are enrolling and completing our courses with an overall success rate for all groups is 85% and a 7% nonsuccess rate.   Life long learners (from individuals who did not complete high school to entry-level freshman to returning students to students with graduate degrees) are well represented within our programs due to the flexibility in course delivery including:

- mediated learning, video streamed, day/night courses
- intensive 3 day to 3 week course offerings, as well as one unit modules to meet the needs of working students

B. In what ways will the program continue working toward achieving these goals?

- Tutorial support through our mentorship program
- Provide internship opportunities under the leadership of our faculty and staff
- Focus on effective learning strategies including note-taking, journal writing, and group presentations in all our classes
- Recording student presentations for student to review for future group work
- We provide ES 1 and ESCI 19 student packets which include effective learning strategies for students (goes to over 600 students per year)
- Teach ES 55, Effective Learning Strategies course, to our students
- Provide internship opportunities to students where they collect, record and analyze field data on biodiversity projects as well as energy management
- Provide assignments in energy-related courses including energy auditing and analysis which exposes students to applied use of math and related disciplines

C. What challenges exist in the program in reaching such goals?

- Our outreach capabilities are limited by the funding to support in-class tutors, student mentors in our stewardship resource center and provide outreach efforts to students both off and on campus
- Due to reduced funds available this year from the ES Endowment, the in-class student assistants were eliminated from many of our ES and ESCI classes
- The growth of our program has increased the demands on our ES team (including faculty and staff). We are all working beyond our normal loads required by the college simply to meet the needs of our incoming students and students in our certificate and degree programs.
- Without additional faculty and staff positions, we will have to reduce our outreach and support services to all students

IV.   Budget Limitations (Please be specific in your responses.)

	2005-06	2006-07	2007-08
WSCH	7,233	11,620	14,905
Productivity	562	714	688
Classroom Teaching FTEF (Academic Year)			
Full-Time	2.34	2.05	2.34
PT/Overload FTEF	1.8	3.06	4.25
Total FTEF	4.16	5.12	6.59
Percent Full Time	56%	40%	36%
Reassigned FTEF	0	0	0
Number of Sections (Fiscal Yr)	134	180	225

A. Identify any limitations placed on the program based on limited funding. What increases in resources are critical to the program and what are the consequences of continued limited funding on the program?

- **Lack of additional full-time faculty is the biggest challenge facing the ES Dept**. Currently, the ratio of full-time faculty to part-time faculty is 3 FT / 25 PT. Using part-time faculty in our classes means that the ES full-time faculty must spend extra time training part-time faculty and seeking more qualified part-timers.
- **Lack of staff support for the Stewardship Resource Center**. This area serves over 500 students per quarter. There is no staff support; student needs are met by student mentors. The Stewardship Resource Center is open from 9 am to 8:30 pm or later, depending on the daily closing time for the Kirsch Center.
- **Lack of staff support for our 10+sections of environmental lab science courses offered quarterly** (including ESCI 19, ESCI 1L, ESCI 20, ESCI 21, ESCI 30, ESCI 63 and other courses); this impacts over 600 students per year. This lack of staff support means that faculty must complete all lab set-up and tear downs and handle other tasks normally provided by staff support in lab settings across campus.
- **Limited outside (FHDA Foundation) funding must be utilized to meet student needs in the Kirsch Center and Stewardship Resource Center**. These activities include lab and field internships, assisting students with mentoring both in-class and in the Stewardship Resource Center. Funding availability is tied to interest earned; in this difficult economic crisis there is serious potential for a dramatic reduction in the continued availability of these funds. The lack of student mentors will result in added workload placed on the 3 full-time faculty and 1 staff position in ES.
- Without additional support from the college, particularly 2 new full-time faculty positions and at least 1 new staff position, we will have to stop any additional recruitment in the ES Department and we will not be able to add new sections or new course offerings commencing in 2010-2011.

B. Describe the consequence to students and the college in general if the program were eliminated or significantly reduced. Please be specific:

- If this department were eliminated, it would have a tremendous impact on student careers and academic progress to 4-yr institutions. The students are eager to develop their careers to include environmental considerations (and this applies to any degree discipline, not just Environmental Studies and Environmental Sciences). They want to take the information they learn in our courses and programs and make a difference in the staggering issues of Global Climate Change, ecosystem and wildlife extinction, the end of Fossil Fuels, and the newest career opportunities such as Renewable Energy strategies to as a means of growing employment opportunities for a nation and world in economic crisis.
- Elimination of the ES Department would mean a loss of the leadership position we hold at De Anza College for environmental training, stewardship and significant continuing outreach and participation in civic and community engagement in our stewardship efforts on behalf of the wildlife and ecosystems of Coyote Valley and the City of San Jose. Other colleges and universities look to us for mentoring for new program development, sustainability practices and other activities including community and civic engagement.
- Elimination of the ES Department would result in the loss of our leadership role in energy management, resource conservation, which has influenced many other institutions
  .
- Elimination of the ES Department would curtail our leadership position in addressing the serious environmental challenges ahead. The Kirsch Center provides a venue for reaching a staggering number of people (both in the center's classrooms and through mediated learning) to help the public understand solutions for transitioning to a sustainable society. The capabilities of the Kirsch Center, technology (video-on-

demand/self-recording classroom), programs (energy, biodiversity, pollution prevention, sustainability and stewardship), and innovative teaching approaches can allow us to educate one million people or more per month

- Elimination of the ES Department would seriously affect the future fundraising viability for programs across the campus. The 20 year commitment by generous donors, leadership, faculty, staff, students and government agencies and others has created a model of energy efficiency, resource conservation, stewardship and sustainability in the California Community College system – is working! The model that the ES Dept is crafting will be one that other areas on campus will be able to emulate in the future to garner interest by potential donors.
- Elimination of the ES Dept would curtail our efforts in continuing to influence public policy. We have implemented Statewide Energy Management Program (SEMP) into the California Education Code and are working with current legislators on Stewardship and Wildlife issues, including the impressive interest in protecting ecosystems and wildlife through implementing corridors across highways and busy transportation lines. The value of corridors in public policy and planning has become in international issue and is being addressed in California legislation, nationwide and is being implemented in many countries.
- Elimination of the ES Department would create a significant void for the college and district because the Kirsch Center is the first LEED Platinum building in the nation's community colleges. Because this building is such a historic and visible project, the questions that would arise would place the college in a difficult leadership position for its support of other sustainability and leadership issues. The E.S. faculty and staff continues to work with the De Anza leadership in the implementing a green building standard, renewable energy strategies and creation of an environmental management system (EMS) plan. These efforts will bring tremendous energy and resource savings potential to the District in the years to come. We believe these efforts benefit the other instructional teams on campus.
- Elimination of the ES Dept would result in the loss of 80+ courses for which there has been demonstrated strong student interest.

V. **Additional Comments (optional):** What additional information is important to consider when reviewing the budget of your program for possible reductions? You may include any or all of the following, or other information.

- **Strategic Planning Initiatives (Community Collaborations, Cultural Competency, Outreach, and Individualized Attention for Retention):** Describe any other Strategic Planning Initiatives your program has addressed.

   The ES Department is engaged in efforts that support these 4 areas:
   - **Cultural Competency:** The ES Department course participants represent the diversity of the De Anza College student population. Through our outreach efforts over the past 15 years we have continued to include in all our courses and program, course objectives focused on cultural and ethnic learning objectives.
   - **Individualized Attention for Retention:** A learning environment created through faculty, staff, student mentors that enhances student learning including hands-on learning emphasizing 8 multiple intelligences, use of technology, interactive and place-based learning and creative learning spaces KCES and the Cheeseman ESA (both indoor and outdoor). The ES Department established a Student Mentor Program that provides critical support for underserved populations campus wide. In 2008/2009, the ES

Department had 4 student mentors and 38 student assistants supporting and assisting students in our classes/programs.

- **Outreach and Community Collaboration:** Outreach to K-12 schools for last 20 years including environmental education outreach through the Cheeseman ESA, outreach to other colleges (greening facilities, statewide energy management training and policy development and sustainable curriculum leadership); partnerships with foundations and other nonprofits including Morgan Family Foundation, Kirsch Foundation, Compton Foundation, Silicon Valley Toxics Coalition, Stevens Creek Watershed Council and others); partnerships with government agencies including California Department of Fish and Game, Cal Environmental Protection Agency (EPA), California Energy Commission and County of Santa Clara Parks Department; and partnerships with business including PG&E. **College Community:** Our faculty and staff participate in the following activities within our college community: Academic Senate, Classified Senate, Environmental Sustainability Subcommittee for the Senate, CEAG leadership for over 15 years (College Environmental Advisory Group), Sustainability Management Systems (SMS) Planning Process, Sustainable Curriculum Workshops for the CCC system, Kirsch Committee, Club Advisors for 2 student clubs and part of the Strategic Planning Workshops on campus

- Relationships with Other Programs: Describe any partnerships or collaborations that the program is actively engaged in, which reduce costs and/or improve service delivery

  - We have worked closely with the Learning Communities program to offer "environmental theme" LC courses at the Kirsch Center
  - We have provided staff, faculty and facilities support to not only the LC program but to others across campus
  - Our ES Team has provided invaluable support and assistance in sustainability efforts campus and district wide including implementation of the Sustainability Management Plan (SMP) for DAC; creation and leadership of College Environmental Advisory Group (CEAG); green building efforts for both campuses including the first LEED Platinum building in district (and state) history; provided leadership training in LEED for DAC community which led to the adoption of LEED as our campus green building standard; California native landscaping advisory role for the campus; creating of the Cheeseman ESA, permanent outdoor lab for our students, and arboretum in partnership with Doug Cheeseman, energy policy for the state of California & CCC districts
  - We have brought numerous experts to the campus and district which have support sustainability efforts for the last 20 years including:
    - Don Aitken, energy expert and renewable energy specialist – with an emphasis in day lighting
    - David Gottfried, founder, U.S. Green Building Council
    - Sim Van der Ryn, leading experts in sustainable design (Designing with Nature)
    - Dave Deppen, leader designer for the Kirsch Center

- State and Federal Mandates: Describe any State or Federal mandates that directly impact the program.

    - Developed a new course AB 32 (California Global Warming Solutions Act of 2006) which will assist DAC, District and other CCD in implementing greenhouse gas (GHG) reduction plans

- Trends (such as enrollment, certificate and degrees conferred, transfer rates, job placement, etc.): Describe any positive and/or negative trends in the program.

    - Clearly stated throughout this document – our program growth and enrollment is substantial in all 4 program areas

- Comparable Programs at other Institutions: Provide any information that you have that would allow for a comparison of the program to similar programs at other institutions in the State.

    o Our research shows that there are no other Environmental Studies / Sciences programs that are as extensive as the ES Department at DAC. In addition to educating our students, the ES Department regularly reaches out to other schools and colleges to share curriculum and teaching approaches and to encourage the formation of ES departments. We receive phone calls and emails weekly from others who are asking for our assistance in these efforts:
        - We assisted Ohlone College in planning for green building and related programs
        - We are assisting efforts at Butte College
        - We continue to assist at Cabrillo College
        - We are assisting efforts at Tahoe Community College
        - We are assisting (we hope) efforts at Gavilan college
        - We have partnered, under the leadership of PG&E and others, to provide energy training with several sister colleges including San Jose City College, Laney College, San Francisco CC and others
        - We created a Sustainability Curriculum for the 21st Century Guide for other community colleges; we have offered two workshops on sharing curriculum with other colleges over the last 3 years

TAB 5

PROGRAM REVIEW 2008-2011

Division: Biological, Health, and Environmental Sciences and Workforce Education

Department or Program: **Health Technologies**

Title of Preparer(s): Pat Hassel, Program Coordinator

In providing responses in the following areas**, please utilize the quantitative data available in the Program Review Enrollment Data Document and the Budget Document.** For the purposes of the Program Review, both departments and programs will be referred to as "program."

I.   **Description and Mission of the Program**

   Which area(s) does this program considerably address (check all that apply):

   ___   Basic Skills   ___ Transfer **X** Career/Technical   ___Other (describe)

   A. Provide a brief description of the program including any services provided and the program's mission.

   The Health Technologies Department offers ten certificate programs that can be completed in 2-4 quarters, although students are not mandated to complete their Health Tech program in this time period. Medical Assisting, (an Associate of Arts degree and Certificate of Achievement-Advanced), is the generic program with nine options: Medical Secretary, Medical Receptionist, Medial File Clerk, Medical Records Clerk, Business Office Clerk, Insurance and Coding Specialist, Medical Transcriber, Lab Assistant and Phlebotomist. In other words, the student may complete the entire Medical Assisting program or certain courses which would result in an option certificate. Students are encouraged to complete more than one program to prepare them as multi-skilled employees for the current health care climate. Some of our students are referred by agencies on campus: Occupational Training Institute, EOPS, EDC, DSS, and others. We have concentrated on educating persons who have had no health care background; however, we will encourage those with experience to enroll in some of our existing courses.

   Originally, we offered one program-Associate of Arts degree in Medical Assisting. A Certificate of proficiency in Medical Assisting was approved in the early 1980's. This program did what it was designed to do-increase enrollment and offer various employment opportunities to our students. The curriculum was repackaged in 1988 for two reasons: to update content and to further increase enrollment, which it did. Once the nine medical assisting option programs mentioned in the previous question were approved in 1991, enrollment tripled. However, our enrollment in all programs has increased and declined during the past due to the increase and decrease in unemployment figures; currently, it has increased over the past several years due to an increase in unemployment figures.

   Mission

The primary mission of the Health Technologies Department is to provide many students with quality academic and practical training in the various careers that are offered. These programs are all certificate career technical programs (one A. A. degree program) which fall under the district's first priority in their mission statement.

B.   Provide a summary of the program's main strengths.
The Health Technologies' strengths include:
*quality of education
Our programs are in more depth that almost any other programs in the State if not the USA. In addition, our phlebotomy students have a 99% pass rate in the national exam.

*student diversity including ethnicity and age
The various Health Tech student ethnicity for 2007-8 includes 39% Asian, 7% Black, 7% Filipino, 16% Hispanic, 19% White, 1% Native American and 3% Other (7% unrecorded).

*retention rate
Each year our retention rate increases by 1%; the retention rate for 2007-08 was 89% Which is excellent, but we will strive to continue to increase it each year.

*student success
Our students success rate us quite high averaging 82.5% for the past 3 years. We will strive to increase it. The success rate is due to our partnerships with the various services on campus.

*instructors' commitment
Our part-time instructors are incredible-they have a full-time instructors' commitment. They spend so much extra time with the students and are always available for meetings, etc.

C.   Provide a summary of the program's main areas for improvement.
*Increase retention rates for our native and non-native speakers by continuing our relationship with the speaking and conversation ESL lab and other services
*Develop new clinical sites-currently, several of our clinical sites have declined to train our students because they are not presently hiring due to the economic problems-we have found several new sites and will continue to explore
*Explore additional external funding; currently, we have Perkins funding; we are exploring additional help from the medical facilities
*Increase student success rate by encouraging our student tutoring
*Develop national accreditation of Phlebotomy, Medical Assisting, Coding, Medical Transcription and EKG Technology programs (our graduates can currently find employment in this State, but finding employment in other states is a problem at times)
*Explore and develop new Health Technology programs with input from our advisory committee members
*Develop existing Health Technology courses to distance learning hybrid courses (such as Advanced Medical Terminology and Medical Law and Ethics)

*Develop phlebotomy, clinical medical assisting, and coding refresher courses (a number of our graduates left the medical field to work in the business arena (higher salary), but have been laid off and cannot find employment opportunities in the medical field because they have no recent experience.

D. What are your expected outcomes (such as learning outcomes, transfer, career goals, certificate and degrees) for students in your program?

*Continue and increase established partnerships with clinical sites and develop new
 partnerships
*Continue constant communication with our advisory committee members
*Provide the students with the most up-to-date curriculum that would allow them to
 to be competitive candidates for employment opportunities;
*Provide the students with state-of-the-art equipment;
*Work with the medical community as information resources and training facilities
*Provide the students with faculty that are current in their fields;
*Develop and implement new programs to meet the needs of the medical community;
*Continue to develop internal and external sources of funding.

II.   **Retention and Growth**

A. How has the program responded to the institutional goal of increased access, growth and retention? (Include the number of students enrolled in the program and the retention rate over the last three years.)
Our department has open access which encourages all students to enroll.

	2005-06	2006-07	2007-08	2008-09
Enrollment	1,919	1,700	1,734	increase
Retention	87%	88%	89%	

I predict that there will be an increase in our student enrollment figures over the next few years-there is much press (25% increase in health care over the next 7 years) regarding the health care field..   In addition, we are continuing to work on increasing our retention rates as shown in the numbers (1% per year if not more) by working with the services on campus such as EDC, OTI, DSS, EOPS.

B. How has the program responded to the institutional goal of increased access, growth and retention <u>specifically for the identified targeted populations of African Ancestry, Latino/a, and Filipino/a students</u>? (Include the number and percentage of the program's enrollment that was made up of the targeted populations and the retention rate of the targeted populations over the last three years.)

	2005-06	2006-07	2007-08
African Ancestry			
Count	90	85	126
Col%	4%	5%	6%
Retention	76%	76%	90%
Latino/a			
Count	354	294	287

Col%	17%	16%	14%
Retention	85%	79%	80%
Filipino/a			
Count	135	131	166
Col%	7%	7%	8%
Retention	87%	91%	87%

We have open access in this department; all interested students are able to enroll in our classes if there is space.

We have been concentrating and will continue to increase the Latino/a count and retention rates by working with Occupational Training Institute and ESL; we could increase this population by making these students more aware of the resources available in both departments. We need to do the same with the Filipino/a students.

C. The Statewide Basic Skills Initiative defines "basic skills" as English, mathematics, reading, writing and ESL skills. In what ways does your program address the basic skills needs of students? For programs that do not directly address basic skills, how does the lack of basic skills impact student success rates for your program?
Our programs address the basic skills by evaluating them in all of our courses. For example, our dosage calculation course (Pharmacology for Medical Assisting) has a basic math component; if the students do not pass this part, they are referred to Educational Diagnostic Center. Also, our biggest problem is language barriers which compromise safety in the health field. We refer students with these problems to ESL. We wish the "ESL for Health Care Providers" course was available for our students, once again. We know this problem impacts many of our students.

All Health Tech instructors recommend that students having problems with basic skills contact me to discuss this issue. I then refer them to the various services on campus. For example, one of our phlebotomy students has terrible spelling so I referred her to EDC; she is dyslexic and will take classes through EDC to overcome this issue.

III. **Student Equity**

A. **What progress or achievement has the program made towards decreasing the student equity gap? (Include student success rates for targeted populations compared with other students over the last three years.)**

African Ancestry	**2005-06**	**2006-07**	**2007-08**	
Success	57	56	103	
%	63%	66%	82%	high increase
Latino/a				
Success	274	208	192	

%	77%	71%	67%	decrease
Filipino/a				
Success	110	114	136	
%	81%	87%	82%	stable

We are concentrating on increasing the success rate for the Latino/a count by working with Occupational Training Institute and ESL; we will increase this population by making these students more aware of the resources available in both departments. We need to do the same with the Filipino/a students.

B. In what ways will the program continue working toward achieving these goals?
Once again, the African Ancestry gap has decreased, the Latino has increased, and the Filipino/a has decreased, then increased. We will use the same services (OTI and ESL) to assist the Latino students (See IIC,). I am referring students with English communication problems to ESL 210 to practice their conversation skills.

C. What challenges exist in the program in reaching such goals?
We do not require an English placement test prior to admission (although we do advise our students to have taken various English courses); however, this would eliminate open access. We (all Health Tech faculty) are working vigorously on this problem by referring them to ESL classes and advising them to practice English emersion at home. In addition, some of our students lack basic skills and have difficulty keeping up with the pace of the class. At least fifty percent of our students are employed and have other responsibilities which do not allow them the time they need to spend on school work.

IV. **Budget Limitations** (Please be specific in your responses.)

A. Identify any limitations placed on the program based on limited funding. What increases in resources are critical to the program and what are the consequences of continued limited funding on the program?
*The most glaring budget limitation is having to rely on grants for our "phlebotomy" professional experts (currently, our Perkins grant covers their salaries). Fifty percent of our students are enrolled in this program and we could not operate this program without these external funds. The consequences of eliminating Perkins would be to eliminate the phlebotomy program (at least 50% of our total enrollment or 1,900 +/- students)
*Another very serious budget issue is not having the funds to offer the ESL course. Seventy-five percent of our students are non-native speakers

B. Describe the consequence to students and the college in general if the program were eliminated or significantly reduced. Please be specific.
The biggest issue is not offering programs that will training students to work in various health careers where there are employment opportunities presently. The medical community would be affected, greatly without graduates. Almost every employee here at De Anza College has met at least one of our graduates in the local medical facilities and has high praise for them. De Anza College would be impacted by 1,700+ students not enrolling in at least 3 CAOS, 1,000 students not enrolling in 2

Health courses and 2 Bio courses each year; there are many other courses that our students in which our students must enroll.

V.   **Additional Comments (optional):** **What additional information is important to consider when reviewing the budget of your program for possible reductions?** **You may include any or all of the following, or other information.**

- **Strategic Planning Initiatives (Community Collaborations, Cultural Competency, Outreach, and Individualized Attention for Retention): Describe any other Strategic Planning Initiatives your program has addressed.**
  Our programs were developed in response to requests from our local medical facilities. We meet continuously with our advisory committee members who work with us regarding changes in curriculum, etc. Throughout the past 19 years the medical facilities have, at times, paid their employees to attend our courses and/or programs. We hope this partnership will continue.

- **Relationships with Other Programs: Describe any partnerships or collaborations that the program is actively engaged in, which reduce costs and/or improve service delivery.**
  As mentioned in the Budget section, we have relationships with CAOS, Health and Biology, in addition to Occupational Training Institute, Educational Diagnostic Center, Disabled Student Services, and EOPS. The medical facilities supply our programs with outdated tubes for our phlebotomy program which is an enormous savings.

- **State and Federal Mandates: Describe any State or Federal mandates that directly** impact the program.
  Our phlebotomy (Phlebotomy Technician I) program is accredited by the State. The State (Laboratory Field Services) has to approve our curriculum every 2 years. If we had to eliminate any part of this program, it would not be approved by the State and our graduates would be ineligible to be employed in the State. In addition, all Medical Laboratory Technicians (DAC is currently the only program in the State) have to be State Certified Phlebotomy Technician I. We are the only community college to offer phlebotomy program in the San Jose area.

- **Trends (such as enrollment, certificate and degrees conferred, transfer rates, job placement, etc.):** Describe any positive and/or negative trends in the program.

  Positive Trends:
  *The positive trend in our programs is that we always have students regardless of the unemployment cycles. Our productivity has increased over the past 3 years (from 530-580). I suspect it has increased this year due the increase in students.
  *Currently, with the unemployment rates increasing in the State, and specifically in this area, the health field is still hiring (not as many but they are hiring).
  *The press has been releasing statistics such as 25% increase in health care employment opportunities in the next 7 years (Baby Boomers are aging!).
  *The Health Tech instructors are noticing that the students are more eager to learn; I suspect that when the 2008-09 stats are released, our total enrollment figures will have increased, our retention and success rates have increased.

Negative Trends:
*A negative trend is that we have many more students that we have room for during the high unemployment cycles.
*A negative trend is the number of our graduates who have not worked
in the medical field and now wish to return to it. They cannot because they have no recent practice with their skills so they have to audit our clinical courses if there is room.
*A negative trend is that the number of phlebotomy certificates has decreased since 2003 due to the new State requirements (students have to be a high school or college graduate or have a GED)
*We have lost several students due to the fact that all Health Tech students have to clear a background check and drug screening prior to their externship.

- **Comparable Programs at other Institutions:** Provide any information that you have that would allow for a comparison of the program to similar programs at other institutions in the State.
  *Many community colleges in this State offer some of our programs but their programs are individual programs not options are ours are.
  *West Valley College has several similar programs, but not the Phlebotomy Technician I program; the only other institutions in this area who offer this program are the private schools which are very expensive (up to $14,000).
  *Our programs offer higher quality training than most similar regional and state-wide programs. Potential students are encouraged to question managers and recruiters in the various allied fields to ask them about the best training programs-and they almost always say "De Anza College"!

Contributors:
Mary Lavin, Phlebotomy Instructor   Juanita Russell, Phlebotomy Instructor
Roberta Powers, Coding Instructor   Guadalupe Hernandez, Medical Transcription Instructor
Cathy Brown-Smith, Medical Communications and Coding Instructor
Donna Kuester, Education and Training, Santa Clara County Valley Medical Center
Karen Bohannon-Reed, Education and Training, Palo Alto Medical Foundation, Camino Medical Group
Cynthia Daywrit, Clinical Laboratory, Kaiser Santa Teresa
Shirley Wong-Jose, Clinical Laboratory, Stanford Hospital and Clinics
Debbie Wagner, Director, Medical Laboratory Technology

TAB 6

PROGRAM REVIEW 2008-2011

Division: Biological, Health, and Environmental Sciences and Workforce Education
Department or Program: **Health Technology/ Medical Laboratory Technology (MLT)**
Name and Title of Preparer(s):   Debbie Wagner, MLT Program Coordinator

In providing responses in the following areas**, please utilize the quantitative data available in the Program Review Enrollment Data Document and the Budget Document.**   For the purposes of the Program Review, both departments and programs will be referred to as "program."
I.   **Description and Mission of the Program**
         Which area(s) does this program considerably address (check all that apply):
         ___ Basic Skills   ___ Transfer   _X__Career/Technical   ___Other (describe)

   A. Provide a brief description of the program including any services provided and the program's mission.
De Anza College's Medical Laboratory Technician Program was designed and created in order to meet the needs of the students, the community and the laboratory related industry by providing a resource for competent, skilled and knowledgeable Medical Laboratory Technicians. The prerequisite courses, Human Anatomy and Physiology, Survey of Chemistry, Introduction to Microbiology, and California phlebotomy certification provide the student with the strong solid science foundation and the basic technical skills and biohazard safety training needed to enter the MLT Program. The MLT Program curriculum, an integration of classroom lectures, student laboratories and clinical training, fosters further development of technical, analytical and problem solving skills required in this profession.   The MLT program culminates in an Associate of Arts degree in Medical Laboratory Technology or a certificate of Achievement-Advanced for those students already possessing an associate's degree. Once the student has successfully completed the MLT program, they are eligible to sit for a national MLT certification exam and apply for California MLT licensure.
The MLT profession is newly recognized by the State of California. The first MLT licenses were issued by the state in March 2008. MLT's are the mid-level step of the clinical laboratory career ladder. Laboratory assistants and phlebotomists now have the opportunity to pursue career mobility, professional advancement, and self-improvement. Potential MLT students are recruited from a variety of sources, existing clinical laboratory employees, students interested in science, foreign students who have completed previous studies in the healthcare field and students retraining or preparing for re-entry into the workforce.
The mission of De Anza College's Medical Laboratory Technician Program is to provide students with the technical skills and knowledge needed to perform routine clinical laboratory testing in all major areas of the laboratory. In addition, our students are aware of the value of lifelong learning and contributing to their community.

 B. Provide a summary of the program's main strengths.
- De Anza College's MLT program, founded in 2004, is currently the only operational MLT training program in the State of California. Community colleges throughout the state are using De Anza College's MLT program as the model for establishing their own MLT programs. The program director serves on two statewide committees addressing laboratory workforce shortages and working directly with community colleges to establish new MLT programs throughout the state.
- De Anza College's MLT program is accredited by the National Accreditation Agency for Clinical Laboratory Science (NAACLS) and is approved by the State of California.
- Graduates of De Anza College's MLT program boast a 100% pass rate on the national MLT certification exam and are employed as MLT's in the community.
- The MLT program is fortunate to have outstanding part-time faculty who are experts in their clinical areas and dedicated to our student's success.

- Four of our MLT courses, Clinical Microbiology, Hematology, Clinical Chemistry and Immunology are accepted by the state as meeting prerequisite requirements for clinical laboratory science training programs. To date we have >90% placement rate of students taking these courses for this purpose being accepted into CLS training programs throughout the state.

C. Provide a summary of the program's main areas for improvement.
- MLT student enrollment is limited by the number of available training sites. Our MLT program is in need of additional clinical training facilities for our MLT students.
- I am the only full-time faculty in this program, responsible for maintaining program accreditation, all administrative duties, marketing and recruitment of students, maintaining laboratory instrumentation, laboratory preparations, and a full-load instruction. There is high demand for these courses, but additional personnel are needed in order to accommodate increased enrollment.
- The MLT program is funded as a partnership with community hospitals. In order for the program to continue, funding from this partnership will need to continue. If the program is to expand increased funding will be needed to purchase student laboratory supplies and materials.
- The MLT program is operating at maximum student capacity. In order for the program to grow, a larger classroom, additional supplies and materials and storage will be required.

D. What are your expected outcomes (such as learning outcomes, transfer, career goals, certificate and degrees) for students in your program?
- Continue established partnerships with local hospitals to offer students and potential employers' graduates that possess MLT entry level skills and are prepared to pass an MLT national certification exam and obtain a California MLT license.
- Continue communication with MLT advisory board to assure that our MLT curriculum remains up to date and that are graduates continue to have the skills needed by our employers.
- Encourage MLT graduates to pursue to the clinical laboratory career ladder by obtaining their bachelor's degree and completing CLS training.
- Foster critical thinking, advanced technical skills, and a desire for lifelong learning in all students enrolled in MLT courses.

II. **Retention and Growth**
A. How has the program responded to the institutional goal of increased access, growth and retention? (Include the number of students enrolled in the program and the retention rate over the last three years.)
- Marketing and recruitment efforts for MLT students and CLS prerequisite students have been one of the top priorities of the program. Because MLT's are a new profession in the State of California, I have spent an enormous amount of time educating hospital CEO's, laboratory managers, CLS', laboratory assistants and phlebotomists throughout the state, about the MLT profession. My presentations include the basics of what is an MLT, how do you train an MLT and examples of incorporating MLT's into the clinical laboratory workforce.
- Student enrollment in MLT courses has increased 46% over the last 3 years. (2005-06 = 152 students: 2007-08 = 280 students.
- Student retention rate has decreased slightly (4%). 90% in 2005-06: 86% in 2007-08.

B. How has the program responded to the institutional goal of increased access, growth and retention specifically for the identified targeted populations of African Ancestry, Latino/a, and Filipino/a students? (Include the number and percentage of the program's enrollment that was made up of the targeted populations and the retention rate of the targeted populations over the last three years.)
- Outreach to the specified targeted populations has been accomplished through the aggressive marketing and recruitment of our MLT program throughout the community resulting in 1% increase in targeted student populations and an 11% increase in targeted populations retention.
- 2005-06 targeted populations = 17% of student population with 77% retention.
- 2007-08 targeted populations = 18% of student population with 88% retention.

C. The Statewide Basic Skills Initiative defines "basic skills" as English, mathematics, reading, writing and ESL skills. In what ways does your program address the basic skills needs of students? For programs that do not directly address basic skills, how does the lack of basic skills impact student success rates for your program?

- Students who lack the basic skills (English, mathematics, reading, writing and ESL) are unable to successfully complete the MLT program. The MLT training program is an advanced program in the allied health field. 80% of medical decisions are made by physicians based on clinical laboratory results. MLT students are trained to perform clinical laboratory testing, evaluate the validity of the test results, release test results to physicians and answer any questions the physician may ask regarding the test results. These professional duties mandate that students possess basic skills.

III. **Student Equity**
A. What progress or achievement has the program made towards decreasing the student equity gap? (Include student success rates for targeted populations compared with other students over the last three years.)

- The MLT program has been highly successful in decreasing the student equity gap over the last three years.
- 2005-06 targeted population = 77% retention, non-targeted population = 93% retention.
- 2007-08 targeted population = 88% retention and non-targeted population = 86% retention.

B. In what ways will the program continue working toward achieving these goals?

- The MLT faculty are committed to the success of each student regardless of their targeted or non-targeted categorization. All faculty are available during office hours, before and after class time and by email for student contact. Five of our courses have been converted to a hybrid format where learning activities such as forums, case studies and supplemental references are available for all students. It is our intention to convert all of our courses to a hybrid format so that this additional learning experience is available to all students.
- A student mentoring program is being developed as an additional learning tool.
- As the program director, I regularly schedule "optional" tutoring sessions for all students enrolled in our courses. These sessions allow students to ask questions about material covered in class by their instructors. I also prepare a review session involving hands on problems, and case studies for these students.

C. What challenges exist in the program in reaching such goals?

- Our biggest challenge in decreasing the student equity gap is twofold: students lack basic skills and time.
  o Students who lack basic skills are unable to keep pace with the rest of the class. It takes them an extended amount of time to read assigned material, understand what they have read and then apply that information to laboratory situations.
  o The majority of students enrolled in MLT courses need to work full-time while attending school and many have family obligations. These factors severely limit the time they have available for supplemental learning activities such as Catalyst and tutoring sessions.

IV. **Budget Limitations** (Please be specific in your responses.)
A. Identify any limitations placed on the program based on limited funding. What increases in resources are critical to the program and what are the consequences of continued limited funding on the program?

- The MLT program receives funding from the school in salaries for its full-time and part-time instructors. We have never received any "B budget "funding. Monies for classroom and student laboratory materials and supplies are provided by our partnership grant with local hospitals. Maximum student enrollment has been reached with the current funding we have available.

B. Describe the consequence to students and the college in general if the program were eliminated or significantly reduced. Please be specific.

- De Anza College hosts the only MLT program in the State of California. It serves as the model program for other community colleges in the state who are interested in starting their own MLT program.
- MLT courses not only train students for a vocational career as a Medical Laboratory Technician they meet prerequisite requirements for CLS training programs.
- Clinical laboratories are experiencing a crisis in workforce shortages. It is estimated that California will need to produce 700 laboratory professionals each year to meet the need. Currently, California produces about 100 laboratory professionals/year. Job predictions by the Bureau of Labor and Statistics indicate 15% growth in this profession from 2006-2016. http://www.bls.gov/oco/ocos096.htm#outlook. Eliminating this model program or significantly reducing its support would have a devastating effect on the students entering this profession as MLT's or CLS' and have a significant impact on the opening of additional MLT training programs throughout the state.

V. **Additional Comments (optional):** What additional information is important to consider when reviewing the budget of your program for possible reductions? You may include any or all of the following, or other information.

A. **Strategic Planning Initiatives (Community Collaborations, Cultural Competency, Outreach, and Individualized Attention for Retention):** Describe any other Strategic Planning Initiatives your program has addressed.
- The MLT program operates as a vital part of the community. It was developed as a response to local hospitals needing MLT's for employment. These hospitals fund the supplies and materials used in the courses.
- The MLT advisory committee is composed of individuals from clinical laboratories who advise the program on current training
- MLT information meetings are held three times per quarter for any student wanting specific information about our program.
- MLT faculty have office hours and are available before and after class for any student requesting individualized attention. The MLT Program Director conducts tutoring sessions are a regular basis to supplement classroom learning.

B. **Relationships with Other Programs:** Describe any partnerships or collaborations that the program is actively engaged in, which reduce costs and/or improve service delivery.
- The MLT program receives no B budget from the school. All funding for classroom supplies and materials come from grant from Hospital Council.
- A majority of the MLT instrumentation has been donated by clinical laboratories. Biotechnology and medical diagnostic companies have donated reagents and supplies.
- The MLT program has groomed relationships with numerous Bay Area employers who generously donate goods and services for the maintenance of our program.

C. **State and Federal Mandates:** Describe any State or Federal mandates that directly impact the program.
- De Anza College's MLT program is accredited by NAACLS and approved by the State of California. This accreditation and state approval mandates the program's curriculum and ensures its operation meets minimum standards.

D. **Trends (such as enrollment, certificate and degrees conferred, transfer rates, job placement, etc.):** Describe any positive and/or negative trends in the program.
- Program enrollment is increasing at a phenomenal rate. WSCH has increased yearly with an increase of 505% from 2004-05 to 2007-08.
- The MLT program offers its graduates an Associates degree in Medical Laboratory Technology or a Certificate of Achievement-Advanced. Because it is not mandatory, a limited number of students have applied for either. California MLT licensure is a much better indicator of the success of the MLT program. 100% of our graduates have passed an MLT national certifying exam on the first try, received their CA MLT license and are currently employed as MLT's in a clinical laboratory.

- 29 of our students have entered CLS training programs throughout the state.

E. **Comparable Programs at other Institutions:** Provide any information that you have that would allow for a comparison of the program to similar programs at other institutions in the State.
- Currently there are no other operational MLT programs in the state. Hartnell College, Salinas, CA, began the first MLT program in California in 1999, but has since reverted to an inactive status.
- Southwest College in San Diego is slated to open their MLT program in Fall 2009.

TAB 7

PROGRAM REVIEW 2009-2010

DIVISION: <u>Biological, Health, and Environmental Sciences and Workforce Education</u>

DEPARTMENT OR PROGRAM: <u>NURSING</u>

NAME AND TITLE OF PREPARER (S): <u>Judith Clavijo. Executive Head of Nursing</u>

In providing responses in the following areas, **please utilize the quantitative data available in the Program Review Enrollment Data Document and the Budget Document.** For the purposes of the Program Review, both departments and programs will be referred as "program".

I.   **Description and mission of the program**.

Which area(s) does this program considerably address (Check all that apply):
____ Basic Skills   __X__ Transfer   __X_ Career/Technical ____ Other

A.   Provide a brief description of the program including any services provided and the program's mission.

1.   **Objectives** to focus our work from 2009-2011:
   - Implement new admission criteria
   - Increase student retention
   - Increase success rate in NCLEX

2.   **Mission**: The mission of the Nursing Program is based on the following principles:
   - Recognition of commonalties and uniqueness in individuals involved in the teaching and learning process.
   - Promotion of development of individual's potential and individual's contribution to society.
   - Providing society with professional nurses capable of providing safe, effective nursing care.

B.   Provide a summary of the program's main strengths.

   - Faculty members who have current knowledge and who are passionate about their subjects of expertise.
   - Diversity of clinical settings that provide students with a broad opportunity for learning.
   - Clinical Assistants (the majority of them being former students) that allow students to take greater advantage of their learning opportunities.
   - Committed faculty to improve student learning through technologically enhanced instruction.
   - High percentage of students passing the National Certificate Licensure Exam (NCLEX)

C.   Provide a summary of the program's main areas for improvement.

   - Maintaining a permanent core of part-time instructors that will be able to teach throughout the year. Part-time faculty in California Community College is limited to the 60% rule. For nursing this regulation creates an extreme hardship, as it requires that the Department to find four new instructors for a six-week period each year. Qualified

applicants find it extremely difficult to go through the training period for De Anza College and a specific hospital for only six weeks. The problem grows more difficult when we train faculty and then they get hired as full-timers by nearby colleges.

- Training and hiring of additional instructors to assist with developing and administering clinical simulation sessions.
- Hiring additional skills lab personnel in order to maintain longer hours to meet students' needs (evening and weekend hours).
- Finding additional funds to continue being able to admit 18 more students per academic year.

D. What are your expected outcomes (such as learning outcomes, transfer, career goals, certificate and degrees) for students in your program?

Some nursing students, if selected, pursue rural summer preceptorships. These experiences afford students exposure to rural hospital nursing, with its unique opportunities and challenges, in a controlled and supervised situation. It has been deemed an overwhelming success by all involved.

Graduates of the nursing program at De Anza College are qualified for entry level positions at acute care hospital.

The associate degree nurse has many other options for continued growth:
- transfer to a 'bridge program' into a Baccalaureate program at many universities
- pursue a Baccalaureate degree from an accredited on-line program
- fast-track to a Masters degree program if they already hold a Baccalaureate degree in another discipline

II. **Retention and growth**.

A. How has the program responded to the institutional goal of increased access, growth and retention?

The nursing program has worked very hard to respond to the institutional goal for access, growth and retention. In relation to access and growth, we have received the support of different hospitals and philanthropists. The support of those individuals allowed the program to admit 18 more students per year, during the last five years, which otherwise we would not have been able to accommodate. The money given by the hospitals and philanthropists was used to hire clinical assistants to help instructors with students in the clinical settings. It also gave students the means to have some extra money to support their schooling.

In order to retain students, the nursing faculty works diligently to identify early in their coursework students who may have trouble retaining concepts in theory classes or may have problems implementing the theoretical knowledge in their clinical experience. Once faculty identifies those students at risk, counseling and peer tutoring are implemented, if a particular student agrees to it. Individualized peer tutoring has been shown to be a strong tool for student retention and success. The student tutor also benefits in that, through the process of explaining concepts, they retain more of the theoretical knowledge.

The classified staff in the skills lab and the media center provides another aspect in our program that facilitates students' retention. The classified staffs schedule permits the skills lab and the media center to be open for longer day time hours. This allows students to

practice their skills, review information from lectures, and increases their chances for academic success.

With a previous grant, students had the opportunity to come to the lab during the evenings and Saturdays to practice their skills. Students who needed extra help took advantage of the special attention they received to improve their knowledge and therefore, increase their academic success. Students had the opportunity to be supervised while practicing their skills, to have tutoring sessions, or small group work and to use all the resources available in the media and skills labs. Students stated how much it meant to them to have the opportunity to come to school during those hours. At this moment, the lab hours are limited to weekdays from 6:00 AM to 4:30 PM. In order to improve access and retention, the program would like to be able to offer evening and Saturday hours

B.   How has the program responded to the institutional goal of increased access, growth and retention <u>specifically for the identified target populations of African Ancestry, Latino/a, and Filipino/a students?</u>

The nursing program does not use any specific tool to target a specific ethnic group. Students are admitted into the program by using a lottery of all qualified applicants. This process allows the program to admit students from all ethnic backgrounds. The program population is a reflection of the community that the school serves.

III.   Student Equity.

A.   What progress or achievement has the program made towards decreasing student equity gap?

As mentioned previously the nursing faculty works diligently in early identification of students at risk. In order to facilitate students' success, the nursing faculty encourages students to use the following tools:
- Use the nursing skills laboratory where students can practice their skills until they feel confident they have mastered them.
- Use the media laboratory where students can view lectures and skills/ procedures videotapes that nursing faculty and professional companies have developed. These tapes are very useful for students who still have some difficulty with English as a second language.
- Use the media laboratory early in the program to familiarize students with practice test questions that increase their critical thinking skills and at the same time help them to prepare for their licensure exam.
- Interact with senior nursing students who act as tutors to clarify concepts, help with required paperwork, or clinical skills.

B.   In what ways will the program continue working toward achieving these goals?

In order to achieve these goals, the program:
- Encourages students to use various campus labs such as: math, and English tutoring centers.
- Takes into consideration students' GPA prior to program admission.

C.   What challenges exist in the program in reaching such goals?

For the nursing program a continuous challenge is the students' lack of critical thinking skills. Many students come to our program accustomed to memorizing the information from books or class. It takes much time from instructors and tutors to modify the behavior of memorization to using critical thinking skills.

Another challenge is that it is not unusual for nursing faculty to encounter and work with students who have difficulty writing, understanding, or being understood in English by classmates, instructors, patients, and hospital staff, despite their high scores in English and Speech classes.

IV. **Strategic Planning initiatives (Community Collaborations, Cultural Competency, Outreach and Individualized Attention for Retention).** Other than what was mentioned in II and III above, what other Strategic Planning Initiatives has the program addressed and in what ways?

The nursing faculty is in the process of getting approval from the college to have two new additional admission criteria for potential students. The nursing faculty expects that with the implementation of the new criteria there will be a lower rate of attrition in the program,

The nursing faculty is also working on incorporating simulation technology in the skills lab. This use of technology will give students more confidence to face potential unexpected situations in the clinical setting.

V. **Budget limitations** (Please be specific in your response).

A. Identify any limitations placed on the program based on limiting funding. What increases in resources are critical to the program and what are the consequences if the program does not receive these resources?

The Nursing program will be challenged once again by the number of students we can admit. Unfortunately, hospitals and donors will not be able to provide the economic support to admit additional students.

Another big challenge that our recent grads are facing is the fact that local hospitals are not hiring new grads. Hospitals prefer to hire traveler registered nurses because of their clinical experience. Faculty is acutely aware that the nursing shortage will be a reality in a few years. However, without the local hospitals' support, many of our graduates will feel obligated to move to other areas or other states in order to meet their financial needs.

B. Describe the consequences to students and the college in general if the program were eliminated. Please be specific.

If the nursing program were to be eliminated, the impact for the college and the community will be catastrophic. Many students that come to the nursing program at De Anza College not only take nursing classes but also represent a high volume of students for other departments such as biology, math, languages and social sciences.

The impact of closing the nursing program will not only affect the college but also the community it serves. It is not a secret that the baby boom generation is getting older and facing more health problems. Closing the nursing program will put a higher toll on a health care system that is already going through a big crisis.

VI.   **Additional comments (optional).** What additional information is important to consider when reviewing the budget of your program for possible reductions? You may include any of the following, or other information.

A.   **Relationships with other programs**. Describe any partnerships or collaborations that the program is actively engaged in, which reduces costs and/or improve service delivery.

The nursing program collaborates closely with our clinical placement facilities:
- Los Altos Sub-Acute & Rehabilitation Center
- Cedar Crest Rehabilitation/ Nursing Center
- El Camino Hospital
- Santa Clara Valley Medical Center
- VA Hospital Palo Alto
- Good Samaritan Hospital
- Kaiser- Santa Clara
- O'Connor Hospital
- Regional Medical Center
- Mission Oaks

In addition, several observational sites are utilized:
- Saratoga Sub-Acute
- Scribbles & Giggles
- De Anza College Day Care (to name only a few)
- REACH (Foothill College)

The professional and collegial nature of these relationships is crucial to the smooth implementation of nursing education and nursing service within these facilities. They facilitate the provision of optimum nursing experiences in premier medical facilities in the area. Frequently hospitals will hire graduates who completed their program preceptorships on one of their units, reinforcing the importance of these professional affiliations.

Current partnerships:
O'Connor Hospital. Is sponsoring one cohort of 10 students and providing a clinical instructor and agency for that cohort for 2 years. Improving service delivery by increasing number of graduates. Enhancing theory instructor morale by paying a stipend for the additional number of students in the classroom. Reducing cost by paying the clinical instructor salaries. Will also guarantee the cohort RN jobs upon graduation and passing licensing exam.

Silicon Valley Scholars (anonymous sponsor). Is sponsoring a cohort of 6 additional students every quarter (currently have the 7th cohort enrolled) and provided clinical assistants for each cohort throughout the program. Improving service delivery by increasing number of graduates, enhancing learning for the entire class of 30 students by having additional instruction, supervision, and learning opportunities via clinical assistants. Reducing cost by paying the clinical assistant salaries.

De Anza College Student Health Center. Our students regularly administer immunizations to the student body. This helps improve service delivery to the student body-at-large, and reduces cost to the college by providing the labor for free.

Various20community agencies. Our students regularly administer immunizations to the community. This helps maintain the excellent reputation of the nursing program, and De

Anza College, in the community.

Community Advisory: We are in frequent contact with key people at each of our clinical agencies, including an annual meeting to report our program objectives, progress, curriculum, issues, etc. This is also an opportunity to dialogue with these agencies to determine their needs and what they need from our graduates to best meet those needs. (The annual meeting includes approximately 15 agencies, including hospitals, skilled facilities, specialty agencies, clinics, etc.). This helps us to improve service delivery to our students and, therefore, the community.

Veteran's Administration/Stanford Hospital: We are partnering with personnel at these agencies to improve Geriatric education not only of our students but students and nurses in the community. To date, we have sponsored an Ethnogeriatric conference, and are currently developing an all-day seminar on Death and Dying, which will include an integration of simulation and didactive concepts of palliative care and psychosocial support.

Recent partnerships:
HCA/Good Samaritan Hospital. Sponsored a cohort of 6 students and provided clinical assistants for that cohort for 2 years. Improved service delivery by increasing number of graduates, enhanced learning for the entire class of 30 students by having additional instruction, supervision, and learning opportunities. Reduced cost by paying the clinical assistant salaries.

State and Federal mandates. Describe any State or Federal mandates that directly impact the program.

The nursing program must follow the regulations dictated by the Board of Registered Nursing (BRN) and by the California Nurse Practice Act. These two entities govern our curriculum, our clinical sites, our didactic and clinical teaching practices, our faculty and clinical assistants qualifications, and the acceptable student-faculty ratio. All of our practices must be in accordance with their regulations and policies.

The California State Education Code, the National OSHA regulations and the National HIPAA regulations also have an impact in our program. These entities mandate principles of safety and confidentiality that are so important in nursing practice.

B. **Trends (may include but not be limited to enrollment trends).** Describe any positive and/or negative trends in the program.

For the last five to six years the number of applicants far exceeds the program's capacity. The number of applicants that enter the lottery system, after they have completed all the requirements for entrance, has been 250- 350 each quarter, with the program being able to admit only 30 students per quarter. Sometimes, students must wait 5-6 quarters before they are admitted. This creates a high level of anxiety for everybody involved.

Starting April 2009, the program will be able to admit only 24 students per quarter. This is due to the end of affiliations with hospitals and the end of economic support from the community.

C.   **Comparable programs at other institutions.** Provide any information that you have that would allow for a comparison of the program similar programs at other institutions in the State.

The directors of the northern California nursing programs meet 3-4 times per academic year. The consensus is that every nursing program in the State of California is functioning to the maximum of its capabilities. In every nursing school, the number of applicants is much higher than the number of spots available.

The clinical placement challenges that the nursing program faces at De Anza College are very similar to any other school in Northern California. These challenges include: limited number of students accepted in the clinical sites, difficulty finding prepared, qualified clinical instructors, and very few if any clinical agencies willing to adapt to the request for clinical placements.

D.   **Basic Skills.**

One area of difficulty for some students in the nursing program is the ability to communicate clearly, both verbally and in writing, in English. Communication is a cornerstone of nursing, and having patients, physicians and peers understand what is communicated is fundamental to safe and efficient treatment.

Although our students must successfully complete a number of classes which include proficiency of the basic skills, we sometimes have students who struggle in these areas. Our goal is to identify these students early and provide them with tools to improve their skills.

We will be measuring basic skills via a pre-admission assessment and will match the results with student success or attrition to better determine how to support students who perform less effectively in basic skills. The assessment we have chosen includes a remediation package for interested students. This assessment will begin in Fall 2009.

We provide peer tutoring for all students who request a tutor for various aspects of the nursing department, including writing nursing papers, care plans, and critical thinking exercises as well as math for medication calculations.

Additionally, we have compiled campus resources for our students to utilize to improve Basic Skills, and encourage our students to participate in programs to improve their speaking skills.

TAB 8

PROGRAM REVIEW 2008-2011

Division: Biological, Health and Environmental Sciences & Workforce Education

Department or Program: The Occupational Training Institute

Name and Title of Preparer(s):   Daniel Dishno

In providing responses in the following areas, **please utilize the quantitative data available in the Program Review Enrollment Data Document and the Budget Document.**   For the purposes of the Program Review, both departments and programs will be referred to as "program."

I.   **Description and Mission of the Program**

Which area(s) does this program considerably address (check all that apply):

X Basic Skills   ___ Transfer   X Career/Technical   X Other – Supportive Services for workforce education students.

A. Provide a brief description of the program including any services provided and the program's mission.

The mission of the Occupational Training Institute (OTI) is to prepare socio-economically disadvantaged students with high-quality employment services including counseling and advisement, career education, job placement and retention training and support.

B. Provide a summary of the program's main strengths.

OTI is a unique organization that complements the Foothill-De Anza District's 50 years of experience in providing basic skills and career programs designed to prepare students for the job market. OTI has over 34 years of experience in linking economically disadvantaged students to career programs and employment opportunities. Over the years, OTI's relationships with employers and industry representatives have benefited the college not only through job placement, but also in terms of college program and curriculum development. OTI has successfully developed and implemented programs that have assisted thousands of clients to establish self-sufficient lives and to retain their jobs and improve their careers.

OTI has strong external working relationships with state and federal agencies, California Community College's Chancellor's Office units, three Workforce Boards, Santa Clara County Social Services Agency, local and regional non-profit organizations and foundations. As a result of these external relationships, OTI has developed and administered categorical, grants and contracts such as CalWORKs, Workforce Investment Act, Chancellor's Office Job Development Incentive Funds, Industry-Driven Regional Collaboratives, Food Stamp Employment Training Program (FSET), Transitional Subsidized Employment (TSE) Program, MediCal Administrative Activities (MAA), Career Technical Education (CTE), foundation funds, and others.

C. Provide a summary of the program's main areas for improvement.

As a result of increased operational costs to the OTI budget, and no increase (COLA) to categorical funding sources (e.g. CalWORKs), necessitated initiating and developing new program funding.   OTI staffs have taken on more work (additional projects) in order to avoid deficit spending and potential lay-offs. Furthermore, local funding agency management such as NOVA Workforce Board Director, Mike Curran has suggested the District divert apportionment generated by OTI students (FTES) to help underwrite some of the overhead expenses necessary to provide services to populations served by OTI

D. What are your expected outcomes (such as learning outcomes, transfer, career goals, certificate and degrees) for students in your program?

Program	Expected Outcomes
CalWORKs	- Student Learning Outcomes (see section below this table) - Students maintain 32 hours per week of allowable activities - Course completion - Program completion - Certificate/Degree - Job placement
TANF/CDC	Assist CalWORKs students achieve Associate Teacher and Teacher Permit levels.
Workforce Investment Act (WIA)	- Students maintain 20 hours per week or 12 units - Course completion - Program completion - Certificates - Job placement
CalSUCCESS (Food Stamp Employment Training Program)	- Students maintain ½ time enrollment status - Course completion - Program completion - Certificate/Degree - Job placement
Transitional Subsidized Employment Programs (TSE)	- Students maintain ½ time enrollment status - Course completion - Work 20 hours per week in a subsidized job - Unsubsidized employment
CompTechs	- Students maintain ½ time enrollment status - Course completion - Work in the CompTechS Lab - Students refurbish donated computers - Retention in Information Technology coursework and employment

CAP	- Job/Internship placement in specific career goal (e.g. health occupations, computer science, or business professions) - Employment retention - Wage increases - Job promotions
MediCal Administrative Activities (MAA)	Assist eligible families to enroll in MediCal, Healthy Families or Healthy Kids funded medical insurance programs.

CalWORKs Student Learning Outcomes

Learning Outcome #1
Upon completion of intake and orientation CalWORKs students will be able to demonstrate their ability to identify and access services available through the Financial Aid system.

Evaluation Methodology #1
Provide every CalWORKs client with a FAFSA application during intake and orientation.

Include in the orientation packet an information sheet to be read, signed and a copy returned to the student, explaining the various services available through Financial Aid

Schedule a Financial Aid advisor during orientation to explain the Financial Aid process and assist CalWORKs clients to complete the FAFSA.

Outcome Assessment #1
Review CalWORKs and De Anza/Foothill College Financial Aid databases to cross match the number of students who filed the FAFSA. Information will demonstrate that 80% of eligible students who received information filed for Financial Aid.

Learning Outcome #2
Upon completion of intake and orientation CalWORKs students will be able to demonstrate their ability to identify and access resources and services available to them in De Anza College and surrounding community.

Evaluation Methodology #2
Provide information in orientations, or one-on-one, on how to access each need listed on the survey below by means of guest speakers and OTI/CalWORKs Coordinators. Each CalWORKs student will then fill out a Needs Assessment Survey covering the items below:

   ___ EMERGENCY: __FOOD __SHELTER __MEDICAL
   ___ TRANSPORTATION: __CAR REPAIR ___OUTREACH/GUARANTEE RIDE PROGRAM
   ___ AUTOMOBILE INSURANCE
   ___ FOOD ASSISTANCE
   ___ CHILDCARE PROVIDERS
   ___ CHILD ABUSE   COUNSELING AND INTERVENTION
   ___ CHILD/YOUTH COUNSELING
   ___ PARENTING EDUCATION AND WORKSHOPS
   ___ HEALTH INSURANCE
   ___ MENTAL HEALTH COUNSELING
   ___ SUBSTANCE ABUSE
   ___ DOMESTIC VIOLENCE INTERVENTION
   ___ CLOTHING
   ___ PG&E ONE TIME BILL WAIVER/WEATHERIZATION

<pre>
___ EXPUNGEMENT OF LEGAL RECORDS
___ TATOO REMOVAL
___ EDUCATIONAL GRANTS AND LOANS
___ TUTORING FOR _____ CLASSES
___ OTHER_____
___ NONE OF THE ABOVE (because all necessary information was provided at orientation)
</pre>
Your advisor will call or email/mail you resources if checked off above.

Outcome Assessment #2
Proof that students are aware and able to access resources will be a copy of a Need Assessment Survey in the student file. Students will either check "none of the above", or items checked will indicate what services are needed and students are aware how to access them. The completion date will be noted on the survey by the student's OTI program coordinator.

II.   **Retention and Growth**

   A. How has the program responded to the institutional goal of increased access, growth and retention? (Include the number of students enrolled in the program and the retention rate over the last three years.)

Program	Students served in 2008/09	Students served in 2007/08	Students served in 2006/07	*Success DA 2007/08	*Success FH 2007/08
CalWORKs	De Anza 210 Projected Foothill 65 Projected	De Anza 194 Foothill 52	De Anza 187 Foothill 48	69%	73%
TANF/CDC	8	8	14	69%	n/a DA only
Workforce Investment Act (WIA)	35 Projected	34	48	69%	73%
CalSUCCESS (Food Stamp Employment Training Program)	40 Projected	n/a new program	n/a new program	n/a new program	n/a new program
Transitional Subsidized Employment Programs (TSE)	30 Projected	n/a new program	n/a new program	n/a new program	n/a new program
CompTechs	93 students projected to be enrolled/ 250 computers projected to be donated to disadvantaged students	66 students enrolled/ 175 computers donated to disadvantaged students	43 students enrolled/ 210 computers donated to disadvantaged students	89% based on NSF research	89% based on NSF research
MediCal Administrative Activities (MAA)	Referrals	Referrals	Referrals	n/a	n/a
Career Advancement Program (CAP)	120 projected students provided with job search assistance	103 students provided with job search assistance	70 students provided with job search assistance	n/a	n/a

*The information displayed in the table above regarding "Success" was provided by Dr. Andrew Lamanque. The District did not provide OTI with data on retention rates of these student populations.

B. How has the program responded to the institutional goal of increased access, growth and retention <u>specifically for the identified targeted populations of African Ancestry, Latino/a, and Filipino/a students</u>? (Include the number and percentage of the program's enrollment that was made up of the targeted populations and the retention rate of the targeted populations over the last three years.)

15% of OTI's CalWORKs students are African American. This is compared to four percent of the college's general student population. Also, 29% of OTI's CalWORKs students are Latina/o. This is compared to 13% of the college's general student population. Three percent of OTI's CalWORKs students are Filipino. This is compared to five percent of the college's general student population. OTI focuses our recruitment and outreach on populations which include students who are socioeconomically disadvantaged, displaced homemakers, dislocated workers, food stamp recipients and/or students receiving cash benefits (welfare/TANF). OTI's services are designed to provide outreach, recruitment, intensive case management, coordination with referring agencies such as CalWORKs, Workforce Boards, etc. OTI also provides students with access to supportive services including child care, transportation, technology (e.g. computers, iPods, and recorders), tutoring, mental health services, work study jobs, and student advocacy.

C. The Statewide Basic Skills Initiative defines "basic skills" as English, mathematics, reading, writing and ESL skills. In what ways does your program address the basic skills needs of students? For programs that do not directly address basic skills, how does the lack of basic skills impact student success rates for your program?

OTI's multiple programs require and support participation in basic skills classes for students. For example, CalWORKs students are required upon intake to take math and writing/reading/ESL placement tests before they can see the OTI academic counselor. This ensures that when students meet with the counselor they receive a personalized education plan that includes their needed basic skill classes. The OTI coordinators and counselor also work with the Educational Diagnostic Center (EDC) office to collaborate on which students, (besides previously identified Learning Disabled students) would benefit from guidance classes. OTI staff also frequently enroll students in Language Arts Division skills classes to fill required hours that support their educational goals. Overall, the majority of incoming OTI students require assistance in basic skills, and OTI is experienced in providing guidance on this issue.

III. **Student Equity**

A. What progress or achievement has the program made towards decreasing the student equity gap? (Include student success rates for targeted populations compared with other students over the last three years.)

Decreasing the gap in student equity is a primary goal of OTI. We achieve this by helping bridge the socioeconomic barriers that are faced by traditionally underserved populations. The Occupational Training Institute provides supportive services for special populations. Students served include very low-income students, dislocated workers and welfare recipients. Examples of unique services designed to increase access, growth, retention and/or student equity include: connecting disadvantaged students with public assistance such as affordable child care, health insurance, unemployment insurance, transportation assistance, etc; providing subsidized work study positions both on and off-

campus in order to help connect students with employment opportunities; collecting, refurbishing and distributing desk top computers to disadvantaged students to bridge the digital divide. Without these services, many students would not enroll in De Anza or Foothill College or be retained in the classroom.

B.   In what ways will the program continue working toward achieving these goals?

Working toward achieving student equity is an ongoing effort at OTI. For example, we are in the third year of a three year study, funded by the National Science Foundation entitled "Internships and Underrepresented Student Persistence in Technical Education". The project coordinates instruction and internships for two community colleges and recruits from nearby agencies serving minorities and economically disadvantaged. It also provides needy students refurbished computers which have been donated by industry/the community and refurbished by students. Industry also provides paid internships. This project documents the relationship between hands on experiential learning and persistence in IT coursework and careers.   It can serve as a model for other community colleges

Many economically disadvantaged people are drawn to job training programs, campus employment and IT certificate programs because they are compelled to work and these training opportunities are shorter and therefore more accessible than degree programs. However, long term opportunities are more limited.   The use of such programs as a stepping stone into traditional academic degrees may be very promising. This is just one example of the work OTI is engaged in to bring equity to targeted underrepresented students at De Anza or Foothill College.

C.   What challenges exist in the program in reaching such goals?

The primary challenges which exist in reaching the OTI's goals include:
1.   OTI receives no general funds for operational efforts, even though we provide services which are clearly stated as a priority in De Anza College's Strategic Plan.
2.   The dynamic nature of external funders priorities. Funding for programs and services provided by OTI comes from federal, state, county and private sources. Some of these funders are a stable source of on-going funding, such as CalWORKs from the California Community College's Chancellors Office. Other sources are not as stable, such as Workforce Investment Act (WIA), from the Department of Labor. OTI responds to fluctuations in funding by continually scanning for resources, innovating programs and applying for new project funding from a wide variety of sources.

IV.   **Budget Limitations** (Please be specific in your responses.)

A.   Identify any limitations placed on the program based on limited funding. What increases in resources are critical to the program and what are the consequences of continued limited funding on the program?

Critical to the OTI department would be a District share of costs needed to fully fund overhead expenses. The OTI budget is over 1.7 million dollars in categorical grants and contract funding. These funding sources (e.g. CalWORKs, WIA) have not kept pace with the District's generous ongoing cost of living increases provided to all District

employees. As a result, the cost to operate externally funded programs exceeds the funding provided by these sources. Consequences of this situation include OTI staff taking on additional projects (more work for staff) to offset growing deficits, or lay-offs.

B. Describe the consequence to students and the college in general if the program were eliminated or significantly reduced. Please be specific.

Foothill-De Anza Community College District's Occupational Training Institute (OTI) serves students that would typically not be able attend De Anza or Foothill College without services provided by OTI. This includes CalWORKs (welfare recipients, dislocated workers (WIA), economically disadvantaged (food stamp recipients), etc. These students are dependent on external agency eligibility determination, financial support and program compliance (e.g. CalWORKs/TANF and Unemployment Insurance (UI) regulations).

V. **Additional Comments (optional):** What additional information is important to consider when reviewing the budget of your program for possible reductions? You may include any or all of the following, or other information.

- **Strategic Planning Initiatives (Community Collaborations, Cultural Competency, Outreach, and Individualized Attention for Retention):** Describe any other Strategic Planning Initiatives your program has addressed.

Outreach: OTI is connected to multiple external funding sources that provide outreach and recruitment to low-income households in our region (Santa Clara and Southern San Mateo counties). This includes CalWORKs, working poor, dislocated workers and displaced homemakers.

Individualized Attention to Student Retention: OTI staff assists workforce/career education students in planning education/career goals. Advise on short and long term goals for their education and career. Refer to and/or coordinate with community organizations and/or employers to meet student needs. Crisis needs for physical and mental health care/food/shelter/child care. Internship needs. Job placement needs. Maintain liaison relationships with college workforce education departments.

CalWORKs program staff also provide work study, and industry-based internships, related to the students' field of study (e.g. IT internships) through grant and categorical funding initiatives.

OTI will continue to address the digital divide by providing refurbished computer systems to economically disadvantaged students. A minimum of 250 computers will be distributed to disadvantaged students annually.

Cultural Competency: OTI employees are encouraged to attend professional workshops and take courses that will develop their skills and provide growth opportunities. For example, population-specific training and workshops for staff serving underrepresented populations entering workforce and career education programs are available through our external partners.

Community Collaborations: OTI continues to represent De Anza College by participating in external workforce agencies serving the Santa Clara County and greater bay area region.

OTI staff consult with administrators, faculty and staff regarding community-based non-profits, social service and workforce agencies that support underrepresented populations such as welfare recipients, refugees, working-poor and dislocated workers.

OTI staff also participates in committees and college-based groups that provide opportunities to disseminate and communicate information of pertinence to external agencies.

OTI also provides career education program faculty and deans with industry representatives and information from the industries in which OTI interfaces with in job placements, internships and incumbent worker training.

1. Which initiatives does your program or service respond to and in what ways can the response be measured or evaluated?

Outreach:
   a. OTI will provide outreach to additional 1,000 food stamp recipients in our region (Santa Clara and Southern San Mateo counties).
   b. OTI will recruit 350 eligible economically disadvantaged students and dislocated workers as required by externally funded sources.

Individualized Attention to Student Retention:
   a. 100% of OTI students will be provided with an Individual Career Training Plan (ICTP) and on-going case management.
   b. The resulting staff to student ratio will be 1:60.
   c. At least 50 CalWORKs students will be provided with on-campus paid work-study jobs, per CalWORKs requirements. Campus departments will provide at least 25% of hourly salary.
   d. A minimum of 250 computers will be distributed to disadvantaged students annually.
   e. All OTI students will be tracked using FMP data base.

Cultural Competence:
   a. Each OTI employee will attend at least one appropriate workshop, seminar, and/or conference annually.
   b. Organize and deliver one cultural competency training for 100% of OTI employees annually.

Community Collaborations:
   a. Attend workforce agency meetings including Workforce Investment Boards (e.g. CONNECT!, Work2Future), Economic and Workforce Education, industry-

sponsored events, Joint Ventures Silicon Valley and CalWORKS funded local, regional and statewide meetings and conferences.
  b. Disseminate information to appropriate administrators and student service personnel on an on-going basis.

- **Relationships with Other Programs:** Describe any partnerships or collaborations that the program is actively engaged in, which reduce costs and/or improve service delivery.

  ### Local County Welfare Department

  The Occupational Training Institute has a long collaborative working relationship with the Santa Clara County Social Services Agency. In 1987, OTI and Santa Clara County SSA established the community college GAIN Consortium that included all seven community colleges in Santa Clara County. Since that time, our District has contracted each year to provide client services such as case management, education plans, advisement, and county services such as reporting, client file maintenance, and attendance at county meetings such as the CalWORKs Advisory, Community College Consortium and other meetings. Without our contractual relationship with our county, De Anza College would not be able to provide a robust CalWORKs program for our students as we do today.

  ### c) EOPS/CARE

  We coordinate with EOPS/CARE by meeting regularly during the quarter. We invite the CARE Coordinator every quarter to speak to CalWORKs students about services. For example, EOPS/CARE staff informs CalWORKs students regarding eligibility and application procedures. We also compare lists of which shared students are being served by each program before the start date of each quarter to ensure all CalWORKs students receive available services.

  ### DSPS/EDC

  Disabled students (e.g. learning disabled) who have been diagnosed with a disability (e.g. assessed by the county-sponsored Keys to Success program) or other disabilities are referred to the Adaptive Learning division for accommodation and academic assistance. CalWORKs Academic Counselor and Program Coordinator meet together with Adaptive Learning staff to share information on services and referral procedures.

  ### Financial Aid

  We assist the Financial Aid department by providing our students, with the Board of Governors Fee Waiver and FAFSA forms. We have phone contact as needed with individual advisors in the financial aid office, and meet when necessary. We invite a Financial Aid outreach representative to quarterly meetings to speak with CalWORKS students about services. For example, if a student is participating in the CalWORKS Work Study program, we communicate regularly with the

financial aid counselor regarding continued eligibility and documentation required by the CalWORKs program.

Workforce Investment Board and One-Stop Centers

De Anza College provides services to students who qualify under the Workforce Investment Board funds. Also, our Chancellor serves as a member of the Workforce Investment Board for the NOVA WIB, which also sponsors the CONNECT! Service that offers job readiness and job search services to all CalWORKs students. We attend meetings monthly with both of our local one-stop centers. OTI staff attends quarterly meetings with both of our local one-stop centers.

Other

- Community Health Alliance (CHAT) offers on-site mental health, domestic violence and other specialized counseling services.
- Housing Authority works with us to provide services related to low income housing (Section 8).
- We contract with Choices for Children, one of the main APP's in our area, to provide childcare services for our CalWORKs students.
- We coordinate Medi-Cal outreach services for students on campus.
- We coordinate referrals to Career Closet for students transitioning to employment or work-study positions.
- We coordinate legal advice through the Western Center for Law and Poverty.
- We work with the Giving Tree of Santa Clara County to coordinate Christmas gifts and back-to-school backpacks for CalWORKs students and children.
- We work closely with Adult Education providers when they are making a referral, or providing the Bridge Program for our students when De Anza has school breaks.
- We invite the Outreach services to sign our students up for their Guaranteed Ride program each quarter.

- **State and Federal Mandates:** Describe any State or Federal mandates that directly impact the program.

OTI is funded through multiple state and federal funding sources including:

Program	Mandate
CalWORKs/TANF (Department of Health and Human Services and California Community Colleges Chancellors Office, CalWORKs Unit.	Assist welfare recipients transition to self-sufficient employment.
Workforce Investment Act- WIA (Department of Labor)	Assist dislocated workers and low-income individuals obtain self-sufficient employment.
Food Stamp Employment Training Program (Department of Agriculture)	Assist food stamp only recipients transition to self-sufficient employment.
MediCal Administrative Activities (Centers for Medicare and Medicaid Services)	Provide outreach and referral services to low-income/uninsured families to MediCal, Healthy Families and Healthy Kids programs.

- **Trends (such as enrollment, certificate and degrees conferred, transfer rates, job placement, etc.):** Describe any positive and/or negative trends in the program.

The unemployment rate in Santa Clara County in January 2009 was 9.3% and for California as a state, 10.6%, compared to 7.2% the same month in 2008. Typically, Santa Clara County has a lower unemployment in comparison to the state as a whole. Students seeking OTI's services have increased significantly. Unfortunately for students and the OTI program, as with the college as a whole, federal and state resources are inadequate to address the needs of students seeking training or retraining for a new career at De Anza or Foothill College.

Many students (especially dislocated workers) seek out OTI's services while on campus. Most are referred to other services such as NOVA Workforce Board in Sunnyvale, where eligibility for educational for services is determined. However, NOVA's (WIA) resources have shrunk over 40% in the past 5 years, exacerbating the situation. Most students understand the budget reductions however, many are turned away and do not find the services they need in other departments. OTI is the primary resource on campus to serve dislocated workers. Without District support (general funds), OTI is unable to assist these students with their unique needs.

- **Comparable Programs at other Institutions:** Provide any information that you have that would allow for a comparison of the program to similar programs at other institutions in the State.

  o Most California community colleges offer a CalWORKs program.
  o Many colleges offer the TANF/CDC program.
  o Few colleges provide services to WIA students.
  o De Anza College is one of two California Community Colleges to provide a Food Stamp Employment Training Program.
  o De Anza OTI is the first college in the state of California to offer a Transitional Subsidized Employment program.

- The CompTechS program is unique, offering any low income student a free refurbished computer.
- A few colleges around the state offer a MediCal Administrative Activities (MAA) program. This program generates discretionary revenue (approximately $100,000) per year.

TAB 9

PROGRAM REVIEW 2008-2011

Division: Biological, Health, Environmental Sciences and Workforce Education

Department or Program: Workforce Education Program Administration

Name and Title of Preparer(s): Margaret Bdzil, Workforce Education Coordinator

In providing responses in the following areas**, please utilize the quantitative data available in the Program Review Enrollment Data Document and the Budget Document.** For the purposes of the Program Review, both departments and programs will be referred to as "program."

I. **Description and Mission of the Program**

Which area(s) does this program considerably address (check all that apply):

___ Basic Skills ___ Transfer _X_ Career/Technical ___Other (describe)

A. Provide a brief description of the program including any services provided and the program's mission.

The Workforce Education (WE) Coordinator contributes to the administration of career technical education (CTE) programs at De Anza College. This position provides oversight of Perkins IC and IIB (Tech Prep) activities and associated funds. These duties require coordination among all CTE programs at De Anza, as well as those at Foothill and local high schools and ROCP's. In addition, the WE Coordinator works closely with other campus and Central Services entities to ensure the smooth operation of programs and compliance with Federal and State reporting requirements.

B. Provide a summary of the program's main strengths.

With her years of experience in the position, the Workforce Education Coordinator is able to provide advice and guidance to all CTE programs at De Anza. She also serves as a resource to other entities in the FHDA District and community.

C. Provide a summary of the program's main areas for improvement.

In order to more fully implement its activities, the Workforce Education Coordinator needs additional staffing support. This additional support would facilitate a greater degree outreach and communication with the public regarding De Anza's CTE program offerings and services.

D. What are your expected outcomes (such as learning outcomes, transfer, career goals, certificate and degrees) for students in your program?

As a requirement of the Perkins IC grant, all CTE programs at De Anza College are required to strive for student retention and outcomes benchmarks. These benchmarks are for the following areas: technical skill attainment, program completion, persistence and transfer, placement in employment, and non-traditional participation and completion. Our local negotiated levels of performance for 2008-09 are as follows: Skill Attainment – 85.55%, Completion – 60.82%, Persistence in Higher Ed – 75.49%, Employment – 74.27%. Overall, most CTE programs at De Anza are performing near or above the negotiated targets in all areas with the exception of Employment. This is an indicator that greater college support and resources should be dedicated to helping our CTE program graduates secure and retain employment related to their studies.

II.   **Retention and Growth**

A. How has the program responded to the institutional goal of increased access, growth and retention? (Include the number of students enrolled in the program and the retention rate over the last three years.)

During the 2007-08 academic year, De Anza College served 21,463 CTE students and issued 985 certificates and degrees in CTE disciplines. These figures are an increase from previous academic year. The faculty in De Anza's CTE programs reach out in many ways to accommodate different student schedules and levels of academic and professional preparation. Most of De Anza's CTE programs offer evening and on-line components with curriculum at the entry level and courses for incumbent workers to keep their current with those dictated by industry.

B. How has the program responded to the institutional goal of increased access, growth and retention specifically for the identified targeted populations of African Ancestry, Latino/a, and Filipino/a students? (Include the number and percentage of the program's enrollment that was made up of the targeted populations and the retention rate of the targeted populations over the last three years.)

All colleges receiving Perkins IC and Tech Prep funds for CTE program improvement are required to ensure the success of "special populations" students in their programs. The CCC System Office currently monitors the disaggregated outcomes of the following "special populations": non-traditional (by gender within the occupation), displaced homemakers, economically disadvantaged, limited English proficient, students with disabilities, and migrant students (and/or their children). Most of the "special populations" groups listed above have outcomes for Technical Skill Attainment, Completions, and Persistence and Transfer within the same ranges of the general CTE student population. Notwithstanding, all CTE students are securing training-related employment at a rate below our negotiated rates: 68% versus 74%. The following figure is an indicator of the need for additional staffing resources to develop stronger connections with area employers and increase opportunities for CTE program graduates.

C. The Statewide Basic Skills Initiative defines "basic skills" as English, mathematics, reading, writing and ESL skills. In what ways does your program address the basic skills needs of students? For programs that do not directly address basic skills, how does the lack of basic skills impact student success rates for your program?

The Statewide Basic Skills Initiative has coordinated with the CCC System Office CTE Unit to offer a series of workshops focused on integrating contextualized academics within CTE courses and programs. A number of De Anza CTE faculty have participated in these workshops. Similarly, the Perkins IC Section 135 (b) requirements charge funded CTE programs to "strengthening the academic and career and technical skills of students participating in CTE programs through the integration of academics with CTE programs." These on-going efforts to improve the quality of CTE programs at De Anza have resulted in more successful student outcomes. Many CTE programs offer tutoring services to their students and refer students to the Tutorial Center, Writing and Reading Center, and Allied Health and Science Resource Centers for additional practice and support.

III. **Student Equity**

A. What progress or achievement has the program made towards decreasing the student equity gap? (Include student success rates for targeted populations compared with other students over the last three years.)

The Perkins plan for the improvement of CTE programs at De Anza College requires that efforts are made to support the success of all students. The program requires that funding and activities be targeted at supporting the success of "special populations" enrolled in these courses and programs. *The details for the "special populations" under consideration was outlined in Section II, Part B.* These "special populations" include many underrepresented student populations. The CCC System Office monitors the success of these "special populations" as compared with their counterparts in the general CTE student population at De Anza and other students around California. These data are published in the Core Indicator Report.

In most cases, "special populations" students are performing at or above the district negotiated performance levels. An exception to this strong performance "special populations" CTE student exists for Core Indicator 4: Employment. This lower rate of performance for "special populations" students is consistent with the lower rates among the general CTE student population at De Anza. These data indicated that De Anza needs to direct more resources to helping these CTE students find and retain employment in fields related to their training. A copy of the CCC Core Indicator Report for De Anza College is attached.

B. In what ways will the program continue working toward achieving these goals?

As a required by Perkins IC Section 135(b) requirements, all CTE programs at De Anza are required to support the success of "special populations" students, including those from other underrepresented populations. Perkins IC-funded CTE program at De Anza will continue to offer peer tutoring, classroom and lab instructional support, and varied instructional modalities to accommodate different student learning styles and preferences. In addition, CTE programs at De Anza work closely with other programs on campus to coordinate ancillary wrap-around services to ensure the success of these students. CTE program coordinators maintain strong working partnerships with the Occupational Training Institute, EOPS, Tutorial Center, Writing and Reading Center, and Financial Aid.

    C. What challenges exist in the program in reaching such goals?

The biggest challenge that faces all CTE programs at De Anza is the lack of sufficient resources for career counseling and job placement assistance. This effects all CTE students, especially those who are members of "special populations." Federal and CCC System Office Perkins IC requirements measure the employment outcomes for all CTE students at De Anza. Unfortunately, the college does not direct sufficient resources towards helping students secure and retain training-related employment. In order to not fall out of compliance with our Perkins IC requirements, De Anza should consider shifting some existing resources to helping raise the rates of post-graduation employment.

IV.   **Budget Limitations** (Please be specific in your responses.)

    A. Identify any limitations placed on the program based on limited funding. What increases in resources are critical to the program and what are the consequences of continued limited funding on the program?

    At present only one position is funded for Workforce Education. In order to increase the level of outreach and services to De Anza CTE students and the general population, additional resources should be directed to the program. The redirection of resources could also contribute to potentially higher outcomes in the areas of CTE program students' persistence and graduates' employment.

    B. Describe the consequence to students and the college in general if the program were eliminated or significantly reduced. Please be specific.

It is essential to maintain at least one person to coordinate Workforce Education programs at De Anza College. This is a critical position that manages a number of Federally-funded programs for CTE program improvement. In addition, the WE Coordinator advises and assists a number of other college and FHDA District entities to ensure the smooth functioning of CTE programs and compliance with Federal and State reporting and accountability requirements.

Section II: Institutional Research Data Review Reports

Section III: Budget Templates