

PROGRAM REVIEW
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Part 1 – Relevance

1. Program Mission:

The mission of the Health Careers and Vocational Nursing Program is to develop and provide quality programs in various aspects of healthcare. These programs encourage education in a variety of health career areas, including Certified Nurse's Aide/Home Health Aide, Vocational Nursing, and Medical Assisting. The Medical Assisting program includes both administrative (front office) and clinical (back office) courses. Numerous other courses, such as Medical Terminology, Nutrition for the Healthcare Provider, and Pharmacology are taught as separate courses but augment all of the Health Career Programs.

Certification programs are provided for the Vocational Nursing Program via the Board of Vocational Nurses and Psychiatric Technicians (BVNPT) and the CNA/HHA program through the Department of Health Services (DHS). Many graduate vocational nurses continue to receive the associate's degree and/or continue into a career as a Registered Nurse.

Analysis:

The department supports the College mission by providing vocational education for students, as well as meeting the community's desperate need for a variety of healthcare workers. The end product of these programs results in increased FTES (from students enrolled in the program, as well as supports enrollment in the academic programs within the college due to the need for a variety of general education and prerequisite courses.

2. Statement of the Program's Student Achievement Outcomes:

After successful completion of the Vocational Nursing Program students will be able to

- A. Identify the etiology, pathiophysiology and signs and symptoms of disorders of all body systems, and stages of development.
- B. Demonstrate an understanding of the nursing process.
- C. Take a leadership role in both the profession of Vocational Nursing and in the community.
- D. Successfully pass the State Mandated NCLEX-PN Boards.

During the last two years, Vocational Nursing has updated all of the course outlines and the general Health Careers courses presented in the catalog. The last program review did not include Student Learning Outcomes for the Vocational Nursing Program, so these have been developed with full time faculty, adjunct faculty and Advisory Groups for the nursing program. The Vocational Nursing Programs has been updated and meets all current state standards and received a two-year accreditation from the BVNPT in May 2009 for both the IWV and the ESCC programs.

3. Catalog Description:

Vocational Nursing Associate of Science Degree (minimum 60 units total, 62.5 in major) is an intensive program totaling 1662 hours approved by the Board of Vocational Nursing and Psychiatric Technicians. The hours include anatomy and physiology, psychology, certified nurse aide (CNA), nursing theory, and supervised clinical nursing experiences. Concepts integrated throughout the first semester of the program include fundamentals of nursing, geriatrics, nutrition, and pharmacology. Nursing care of clients with various adult medical-surgical conditions is integrated throughout three semesters of the program. Course content also includes concepts of growth and development, normal obstetrics, and pediatrics. After successful completion of the program, the student is eligible to take the licensure examination provided by the National Council of State Board of Nursing (NCLEX-PN).

Any student completing the courses required for the major qualifies for a certificate in Vocational Nursing.

For information regarding the process of application and admission in the program, interested students should contact the Counseling Center or the Director of Vocational Nursing Program.

4. Program Requirements:

PREREQUISITES

BIOL C251	Human Anatomy	4 units
BIOL C255	Human Physiology	4 units
CSCI C070	Computer Literacy	1 unit
HCRS C055	Certified Nurses' Aide	5 units
HCRS C150	Medical Terminology	3 units
PSYC C101	General Psychology	3 units

SEMESTER I

HCRS C101	Vocational Nursing: Medical Surgical Nursing I	8 units
HCRS C111	Vocational Nursing: Clinical Practice I	6 units
HCRS C070/EMTC C070	CPR for the Healthcare Provider	0.5unit

SEMESTER II

HCRS C102	Vocational Nursing: Medical Surgical Nursing II	8 units
HCRS C112	Vocational Nursing: Clinical Practice II	6 units

SEMESTER III

HCRS C201	Vocational Nursing: Medical Surgical Nursing III	8 units
HCRS C211	Vocational Nursing: Clinical Practice III	6 units

Complete general education requirements and electives for a minimum of 60 total units.

*Note: All prerequisites must be successfully completed with a grade of "C" or better before entering the program. Students must also possess a current CNA certificate.

(Cerro Coso Community College Catalog, Appendix A)

An accredited school of Vocational Nursing is one in which has been approved by the Board of Vocational Nursing and Psychiatric Technicians and gives a course of instruction in Vocational Nursing of not less than 1530 hours or 50 semester units approved by the Board pursuant to Section 2882, whether the same be established by the State Board of Education, other educational institutions, or other public or private agencies or institutions and is affiliated or conducted in connection with one or more hospitals.

The IWV Program received a 2 year accreditation from the BVNPT in May 2009, and the ESCC Program received its initial 2 year accreditation from the BVNPT in May 2009.

(Certificates of Accreditation, Appendix B)

Part 2 – Appropriateness

1. Student Demand Data:

School Year	Enrollment
2004-2005	360
2005-2006	378
2006-2007	757
2007-2008	795
2008-2009	890

School Year	Enrollment End	FTES Actual	# Sections Offered	Avg Size Section
2004-2005	360	68.3	26	13.8
2005-2006	378	72.9	25	15.1
2006-2007	757	109.5	44	17.2
2007-2008	795	127.2	51	15.6
2008-2009	890	169.2	56	15.9

(Institutional Data obtained from ODS)

Data was obtained through ODS. From 2004-2005 to 2008-2009 there has been a 147% increase in enrollments for the academic year and a 115% increase in sections offered with the average class size per section also increasing by 15%. Although we have substantially increased enrollment and sections, we as a department have not increased full time faculty. We currently still only have 2 full time faculty. As evident by the data the Health Career Programs have been growing exponentially over the last 5 years. Student demand remains high; we will continue to offer our courses onground, online and iTV to reach a wider geographical base of students.

2. Place of Program in Curriculum/Similar Programs:

The Vocational Nursing and Health Career Programs are designed to provide both short-term and long-term education to meet the needs of the various communities we service and individual student interests. In addition these courses establish a career ladder for students interested in a variety of aspects of healthcare. The programs are designed to integrate with existing courses in sciences, mathematics, and humanities. The Health Careers/Nursing Department provides high quality education and meets or exceeds certification standards stressed in the College Mission as well as standards mandated by various State agencies. Programs maintain continuing accreditation or approval by the Department of Health Services (CNA/HHA) and the Board of Vocational Nursing and Psychiatric Technicians.

There are no other programs on campus that offer similar courses and we are not in direct competition with any other program.

3. Curriculum Currency:

All of the HCRS courses have been updated within the last 2 years. All of the Vocational Nursing, Certified Nursing Assistant, Home Health Aide courses are in alignment with the state licensing boards and have received accreditation for each site. (IWV, KRV, ESCC)

(Accreditation Approvals, Appendix C)

4. Transfer Documentation:

We are currently considered a vocational program only. There is no information available regarding transfer students. However all 100 level courses within the program are transferable to the CSU system.

Currently the LVN Program is part of the LVN – RN Bridge Program with Bakersfield College. Students completing their LVN through Cerro Coso and additional prerequisites are eligible for the LVN - RN Bridge Program. Completion of PSYC C101, BIOL C251, BIOL C255 are 3 of the 10 additional prerequisite requirements for the Bridge Program.

5. Course scheduling:

All courses in the Health Careers Department (HCRS) have been included in the long term schedule. A draft long term schedule has been developed for all courses at all sites including online. The long term schedule will be discussed among the faculty, administration, counseling, site directors, and advisory boards every semester with the needs of the students, college, and community being addressed.
(Long Term Schedules, Appendix D)

6. Methods of Delivery:

Vocational Nursing courses are offered onground at IWV starting every year in January and ITV at ESCC starting every even year in January. The new Interactive Television (iTV) equipment and technology have allowed us to expand our nursing program to ESCC. Along with these courses we have begun using a Moodle site to provide additional resources, testing material, announcements, forms, etc, for the nursing students. Both the iTV and the use of Moodle have been valuable tools for our sites and students.

With the use of iTV we have also been able to expand our offerings of HCRS C061 Medical Receptionist and HCRS C062 Finance and Billing to our sites at ESCC each fall. As these classes are also offered online, the ability to fill has been enhanced by the use of iTV to the ESCC area.

All Certified Nursing Assistant and Home Health Aide courses are approved by their respective state agencies for onground only. These courses are offered at the IWV, KRV, and Bishop sites numerous times throughout the year.

The remaining stand alone courses for HCRS are offered online and onground.

Listing of all HCRS courses and Method of Delivery

Course Number	Name	Onground	Online	iTV
HCRS C055	CNA	X		
HCRS C061	Medical Receptionist	X	X	X
HCRS C062	Finance/Billing	X	X	X
HCRS C064	Medical Assisting	X		
HCRS C068	Medical Assisting Externship	X		
HCRS C070	CPR	X		
HCRS C121	Nutrition		X	

HCRS C140	Intro to Health Care		X	
HCRS C150	Medical Terminology	X	X	
HCRS C160	Rehabilitative Career Choices		X	
HCRS C230	Pharmacology for the Healthcare Professional		X	
HCRS C240	Nutrition/Diet Therapy for the Healthcare Professional		X	
HCRS C250	Cultural Diversity in Healthcare		X	
HCRS C255	Basic Cardiac Rhythm Interpret		X	
HCRS C260	Ethics in Healthcare		X	
HCRS C101	Vocational Nursing Semester 1 Theory	X		X
HCRS C111	Vocational Nursing Semester 1 Clinical	X		
HCRS C102	Vocational Nursing Semester 2 Theory	X		X
HCRS C112	Vocational Nursing Semester 2 Clinical	X		
HCRS C201	Vocational Nursing Semester 3 Theory	X		X
HCRS C211	Vocational Nursing Semester 3 Clinical	X		

7. Teaching Methodologies:

Vocational Nursing and Health Career courses are either lecture, in a clinical setting or a combination of lecture and clinical. Many different methods are used in the lectures. Because of the content of the material being presented, the instructors use hands on techniques, powerpoint presentations, group discussions, field trips, observations, hands-on simulation, virtual simulation, and practical assignments along with the lectures to deliver the course information.

8. Student Fees:

Neither Student Fees nor Materials Fees are expected in Vocational Nursing or Health Career Programs.

9. Explanation of Employer Relationship:

Health Careers works closely with our Advisory Groups in our local communities. Our Advisory Groups include representatives from the local healthcare agencies. We survey annually the groups to see if they have specific needs in their respective communities. As a result of the survey in 2008-2009, we found that the ESCC area had a specific need for Front/Back Office personnel. In response to this need we offered HCRS C061 and HCRS C062 via iTV to the area in the Fall 2009. Although we are an occupational program and train students to work in the various healthcare agencies in the communities, we do not try to meet the needs of specific employers but the general needs of the communities.

Instead we comply with the Board of Vocational Nurses and Psychiatric Technicians and the Department of Health Services by following the requirements for the LVN, CNA, and HHA licenses.

10. Advisory Committees:

The Health Careers Advisory Committees (one at IWV and one at ESCC) each meet at least once a semester to review the programs and assist in developing and scheduling courses to meet the needs of the individual communities. Members of the Advisory Committees represent the main employers and healthcare organizations of the communities, student members, faculty, and the local high school ROP representatives.

To promote the articulation with the local high schools and ROP programs, faculty members of the Cerro Coso Community College Health Career Programs also serve on the ROP Advisory Boards in the local communities.

Part 3 – Achievement of Student Learning Outcomes

1. Student Performance Data:

Data based on all HCRS Courses

School Year	Total Grades	# Retained	% Retained	# Successful	% Successful
2004-05	358	332	92.7	291	81.3
2005-06	357	329	92.2	277	77.6
2006-07	691	629	91.0	524	75.8
2007-08	708	660	93.2	562	79.4

(Institutional Researcher Data –ODS)

LVN BOARD PASS RATES

YEAR (JAN-Dec)	Cerro Coso # Students	Pass Rate	State Average
2005	12	100%	79%
2006	10	100%	79%
2007	No class eligible for boards		76%
2008	14	100%	74%

(BVNPT Data Base)

The student success rate for all HCRS courses fell 1.8% from 2005-2006 through the 2006-2007 school year. In the 2006-2007, year we saw an increase in students by 48.34% with the implementation of 12 new online courses. The increase continues through the 2007-08 school year with a 2% increase and an 3.6% increase in overall student success rates. Student retention rates fluctuated only 2.2% throughout these years. The data provided by ODS is not accurate as the data has not been coded correctly into banner. Several areas have been identified that do affect the data statistics and are currently being addressed. A full time institutional researcher for Cerro Coso would be able to assist with this process and be able to provide accurate statistics.

2. Achievement of Program Learning Outcomes:

Assessment methods for the PLO's were developed during the 2008-2009 school year and are currently being assessed.

PROGRAM LEARNING OUTCOMES AND ASSESSMENTS: Upon successful completion of the program, the student will be able to

- A. Identify the etiology, pathiophysiology and signs and symptoms of disorders of all body systems, and stages of development.
This will be assessed by scoring a passing mark on the NCLEX-PN Boards.
- B. Demonstrate an understanding of the nursing process.
This will be assessed by scoring a passing mark on the NCLEX-PN Boards.
- C. Take a leadership role in both the profession of Vocational Nursing and in the community.
This will be assessed by successful job placement in the field.
- D. Successfully pass the State Mandated NCLEX-PN Boards.
This will be assessed by scoring a passing mark on the NCLEX-PN Boards.

Courses	A.	B.	C.	D.
	HCRS C101		X	
HCRS C111		X		X
HCRS C070			X	X
HCRS C102	X	X		X
HCRS C112	X	X		X
HCRS C201	X	X	X	X
HCRS C211	X	X	X	X

3. Data Plan:

In addition to collecting data for the LVN program, we also must find a way to collect data (pass rates) for the Certified Nursing Assistant programs, Home Health Aide programs, Medical Receptionist, Medical Finance and Billing, and Medical Assistant programs.

We also need to be able to assess the students’ employability after completion including their ability to get a position in their field, and the employers’ impressions of and needs for the various Health Career programs.

We have a need to be able to actually track the awards, certificates, and degrees that Cerro Coso awards every semester to Health Career students. The current information available is not accurate due to improper TOP codes being issued, students not requesting the award or certificate, and various other issues. We will need to work closely with CIC to make sure all TOP codes are correct; that the students and instructors are aware of the awards and certificates available and assist the students in requesting these. This will also require working closely with counseling to identify those who do qualify for the various recognitions.

The need for a full time Institutional Researcher is crucial in the tracking the data and accurate reporting of the data for the program.

Part 4 – Currency

1. Course Staffing Data and Currency:

There are currently 20 adjunct faculty teaching courses in the Health Careers/LVN Program. There are 2 full time faculty in the LVN Program. Of these 20, three are 100% load in the LVN program as Professional Experts.

Health Careers has experienced a 147% increase in enrollments over the last 4 years, with no increase in the number of full time faculty. Health Careers is expecting at least a continued 10% increase annually in enrollments over the next 3 years. The average overload in the LVN program is 47% for each full time faculty (0.94 load). It is also noted that 8 of the 10 current adjunct instructors are teaching at maximum load.

With the increase in enrollments, and the current average overload, use of Professional Experts we have the need to hire an additional four full time faculty within the Health Careers Department.

2. Facilities Currency:

Health Careers uses the same facilities as the rest of the programs at the college. Our current skills lab facilities at IWV and KRV are outdated and in need of an upgrade to accommodate the increase of students. The ITV classrooms at IWV, Bishop, and Mammoth have recently been updated to Polycom. The other classrooms are adequate, but only accommodate 15 students each and need to be expanded to allow for the increase in students.

3. Equipment Currency:

The equipment in the skills labs at all four campuses needs to be updated to include simulation manikins for training at all levels. The hospital equipment in the skills lab is outdated and requires constant maintenance to maintain workability. The decrease in the overall budgets for supplies is requiring that we recycle many supplies that are actually disposable, which are not creating the best learning experience for our students.

We did receive through grant funding (2008) for 15 laptops for use by the LVN students at both IWV and ESCC campuses for use in the classroom. These have allowed the students to participate in virtual simulation exercises to gain additional hands on experience.

4. Cost of the Program:

Instructor Costs 2008-2009	
Acad-Reg Schedule	\$188,484.62
Acad Emp Admin	\$ 33,559.06

Adjunct Acad Emp non-cont	\$163,384.10
Acad Emp Intersession	\$ 16,949.90
Acad Emp Overload	\$ 38,282.20
Instr Aide FT Direct Inst	\$ 10,210.95
Total	\$450,870.83

Reference College Budget (Banner)

Using the formula provided for Marginal Revenue

#hr X #students/525 = FTES

#FTES x 4564 = Revenue

Based on 2008-2009 FTES of 169.2 $169.2 \times 4564 = \$772,228.80$

Showing a net gain for **\$321,357.97** for the Health Careers Department for the 2008-2009 academic year.

Several questions have been raised regarding the costs associated with these programs. Does each CTE department actually pay \$33,559.06 for an Academic Employed Administrator?

Part 5 – Future Needs and Plans

1. Program Strengths:

- Providing needed healthcare workers throughout the local communities
- Allow access to programs through various means of technology to rural areas
- Working closely with local healthcare facilities through Advisory Groups
- Pass Rates for all programs above State average
- Work closely with high schools and articulation agreements

2. Improvement Needs:

- Continue to provide students with skills using current up to date technology
- More in depth data collection
- Develop needed programs within each community and staff appropriately
- Develop an online tutor program to assist all Health Careers students

3. Five-Year Program Plan:

Student recruitment is promoted by having community visitors attend a formal Open House, personal contacts, high school articulation, and by the Health Career Website. Retention is addressed by promoting prerequisite courses and recommended courses such as IC C075 Intro to Library Research, and pre-algebra courses. The enrollment in these courses has increased, which coincides with a noticeable increase in student retention.

1. The Health Careers/Nursing Program continually strives to promote its courses by increasing community awareness of course availability, participation in curriculum content via advisory

groups, evaluations by students, and anecdotal student notes. This process is furthered by the use of Advisory Groups that help guide the growth and development of community needs.

2. The Health Careers/Nursing Program closely monitors the outcomes of its students to ensure the viability of program offerings and instructional methods. This process is aided by the use of the program review to verify program successes and failures. The Board of Vocational Nursing and Psychiatric Technicians and the Department of Health Services monitor the success of students after course graduation via mandated testing. These statistics are given as numbers of students who pass the certification exams. The Health Career Programs have consistently provided an excellent pass rate for graduates of these courses.
3. The Health Careers/Nursing Program has continued to work diligently at developing and refining coursework to fulfill the college goals. The LVN Program is currently being offered via ITV from the IWW campus to the Eastern Sierra College Center Bishop and Mammoth Campuses. CNA courses and medical assisting courses are provided at the Indian Wells Valley campus, Kern River Valley campus and the Eastern Sierra College Center Bishop Campus. Cerro Coso Community College has also been highly active in the promotion and development of an LVN to RN Distance Education Career Ladder Program with Bakersfield College.
4. The financial stability of the college has been augmented by increasing the enrollment of students interested in health careers. Since the 2004-2005 school year enrollment in the Health Career Programs has increased from 360 students to 890 students in 2008-2009. The Health Careers/Nursing Program attempts to stay aware of the need to control operational costs by restructuring the courses necessary and redesigning programs to increase efficiency when needed.

4. Relation of the Five-Year Plan to the College Mission:

The department supports the College mission by providing vocational education for students, as well as meeting the community's severe need for a variety of healthcare workers. The end product of these programs results in increased FTES (from students enrolled in the program, as well as supports enrollment in the academic programs within the college due to the need for a variety of general education and prerequisite courses.

5. Strategies for Achieving the Plan:

The Health Career Program will continue to address the college's strategic initiatives through the following:

IMPROVE STUDENT ACCESS, RETENTION, AND SUCCESS

1. Reduce attrition rates for all programs through the development of student support systems
2. Improve retention rates for all programs by working with basic skills courses and supporting students who demonstrate need for improvement in all academic areas.

PROVIDE EFFECTIVE LEARNING AND EARNING PATHWAYS FOR STUDENTS

1. Increase collaboration with Bakersfield College to provide RN education for constituents
2. Develop alternative methods of instruction for students in the communities serviced by CCCC

SUPPORT STUDENT LEARNING THROUGH APPROPRIATE TECHNOLOGY

1. Increase student learning support systems through the use of Computer Assisted Instruction (Moodle), simulated learning, use of Podcasts for visual demonstration purposes, and the development of student support courses (learning lab and online tutoring).
2. Provide training of instructors in new technologies, e.g., ITV, and simulation aid, which will maximize the success of students in those classes.

Supporting Documents

Health Career Faculty/Staff

Full Time Faculty

Cheryl Gates RN MSN PHN (Director of Vocational Nursing and Health Careers)
Annette Hodgins RN MSN PHN

Adjunct Faculty

Sharon Aleo (IWV)
Victoria Alwin (KRV)
Maxine Binn RN (ESCC)
Sharon Britz (IWV/Online)
Sharon Brown RN (ESCC)
Becky Copeland RN (IWV)
Joy Donoho (KRV)
Debra Earls RN (ESCC)
Denise Johnson (IWV/Online)
Greg Kost (Online)
Yvette Matthiessen (ESCC)
Michael Metcalf (IWV)
Jeanne Olson (KRV)
Elizabeth Pate RN (IWV)
Cheryl Pullen (IWV)
Mitch Seal (Online)
Letty Sparling (KRV)
Matt Wanta RN (IWV)
Wesley Williams (KRV)
JD Wright (Online)

Classified Support Staff

Ruby Allen TA (Bishop)
Shelley Crabtree Scheduling Technician (IWV)
Margaret Mauldin Instruction Office Specialist (IWV)
Angela Sellers Administrative Assistant (IWV)
Tim Willoughby TA (Mammoth)