

## Instructional Program Review Report Sierra College, Fall 2011

Department/Program Name: Heath Sciences  
Date Submitted: 11/15/2011  
Submitted By: David B. Sinclair

Ideally, the writing of a Program Review Report should be a collaborative process of full-time and part time faculty as well as the appropriate educational administrator, instructional assistants, classified staff members and students who have an interest in the present and future vision of the program at all sites throughout the district. The Program Review Committee needs as much information as possible concerning the present and future of the program to assess and recommend the resources needed to keep the program viable and robust. Complete and concise responses to the prompts are most appreciated. Please limit your responses to 100 words or fewer, unless otherwise directed. Refer to the detailed instructions (see Program Review webpage) when completing this form.

Please attach your Department Statistics Report and your ePar Report when sending in your Program Review.

**To provide context for the information that follows, describe the basic functions of your program.**

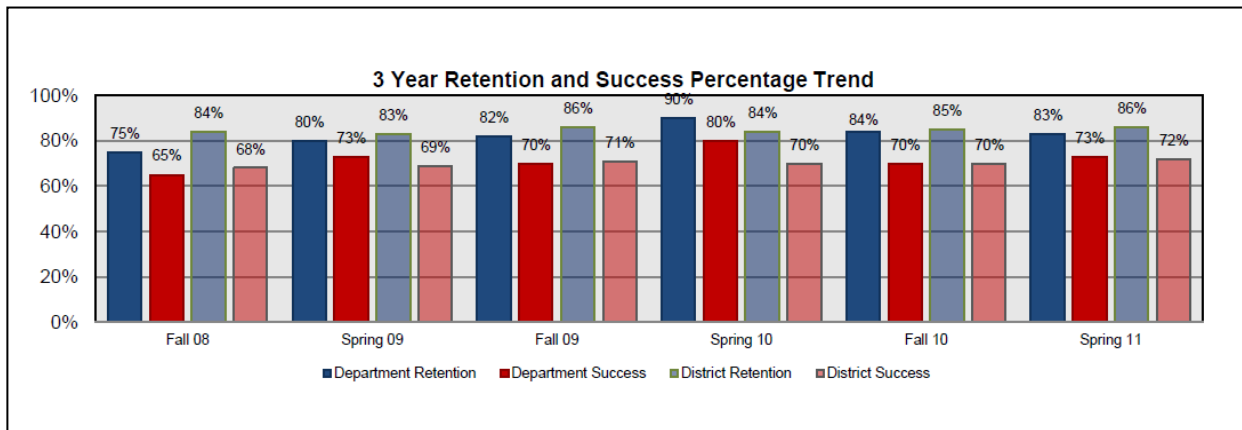
The Health Sciences Program prepares students for challenging careers in Emergency Medical Services and Public Safety professions. Courses provide the required education and training for job placement opportunities.

Certificates of Completion are awarded for HSCI-2/EMT (Emergency Medical Technician) and for HSCI-7/EMR (Emergency Medical First Responder), providing eligibility for National Registry Certification and State Licensing.

The program also provides prerequisite courses for Paramedic Training Programs, the Regional Fire Academy, and vocational training in Allied Health occupations. Additional provisions of the program include continuing education and supplemental training required to update, or maintain a National Certification and/or State License.

1) **Effectiveness:** This section assesses the effectiveness of the program in light of traditional measurements.

1a) **Retention and Success:** Identify and explain the trends in your program’s data. Address separately the data for on ground and on-line course. Comment on the significance of the trends as well as the challenges experienced within the program. If you see a need to improve the statistical trends, outline a plan that will achieve the changes you are seeking. Please refer specifically to the data in your Department Statistics Report, as supplied by the Research and Planning Office, in supplying your answer.



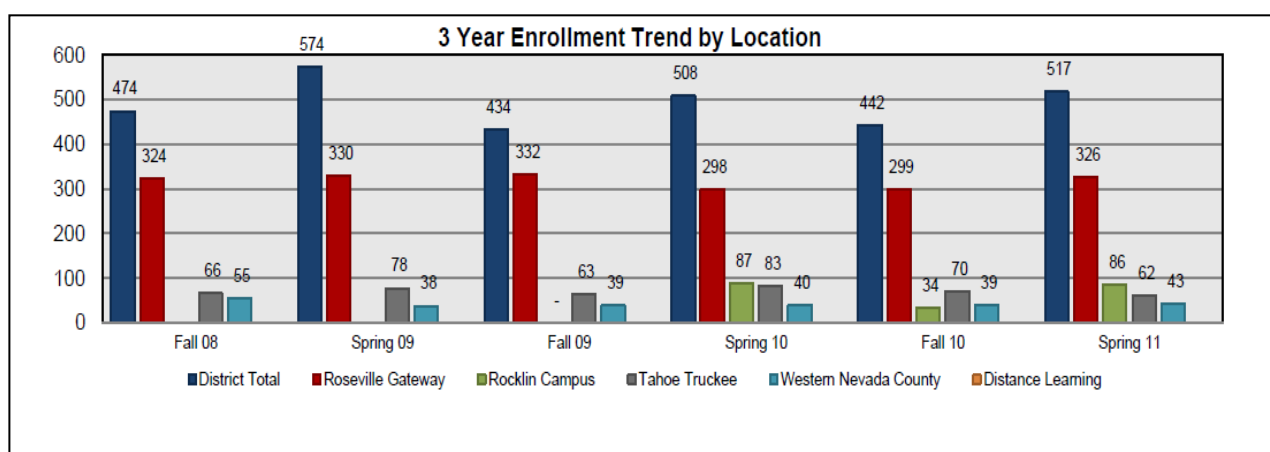
Health Sciences retention rate is 82%; slightly below the district average of 84.6%. The average for course success is 72% compared to a district average of 70%.

The department enrolls a significant percentage of students completing the prerequisites for paramedic programs offered at other institutions and for reentry/career change students seeking minimal qualifications for occupational experience and job opportunities.

The department will continue to work toward improving the retention and success rates. Plans to offer a skills certificate are being finalized and the feasibility of offering a paramedic program with an AA degree and/or Certificate of achievement is being researched and developed.

Online courses are not approved by local EMS or applicable.

**1b) Enrollment Trends: Identify and explain the enrollment trends in your program’s data. Address separately the data for on ground, on-line, and enrollment at the various centers. Comment on the significance of the trends as well as the challenges experienced within the program. If you see a need to improve the statistical trends, outline a plan that will achieve the changes you are seeking. If applicable, comment on both the past performance and the future direction of the program as a whole as well as by location and mode of delivery. Please refer specifically to the data in your Department Statistics Report, as provided by the Research and Planning Office, in supplying your answer.**

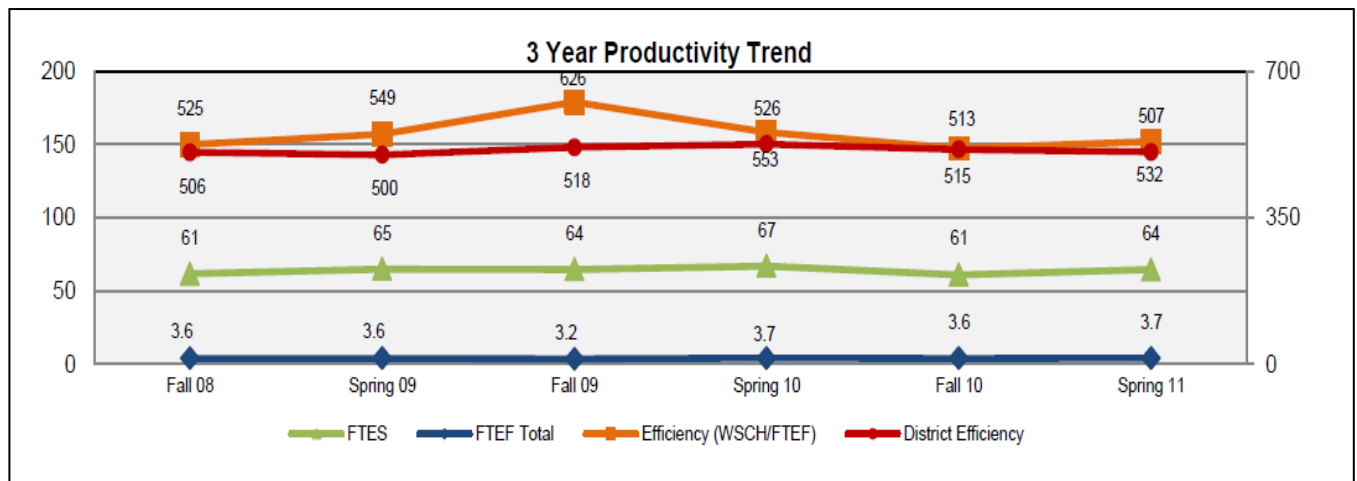


The HSCI department shows consistent enrollment numbers with little measurable difference between spring and fall. A 10% enrollment drop in 2010 may be attributed to the hiring freeze in overall health care industry.

Enrollment demands meet or exceed maximum capacity for all HSCI courses. HSCI 7 (EMR) was re-implemented in fall 2010, reducing the add requests for EMT classes while providing students with a measurable option and a recommended prerequisite.

Enrollment at all three centers is expected to remain consistent as EMT/EMR certifications remain primary requirements for employment. HSCI courses also meet required prerequisites for extended training programs such as Paramedic Schools and the Regional Fire Academy.

**1c) Productivity: Comment on how the program contributes to overall district productivity. Comment on the significance of the trends as well as the challenges experienced within the program. If you believe the statistical trends need improvement, outline a plan that will achieve the changes you are seeking.**



Health Sciences productivity has closely paralleled or exceeded the district over the past three years. FTES has remained consistent without any measurable increase or decrease.

HSCI 2/EMT courses have generally been positive attendance courses offered only during the evening and on selected weekends. The department started offering day courses in 2009 and will offer three (3) daytime EMT courses beginning spring 2012. These are eight (8) hour classes scheduled for one day a week.

These classes should be reevaluated and considered as census base courses which would increase the program's overall FTES efficiency.

**1d): Referring to your ePar Report of Goals, Strategies, and Actions, comment on how your program plans to maintain or increase its effectiveness and whether it has taken actions to do so.**

Nine department goals and strategies are identified in the ePar report. Several goals are active projects with current research and progress toward development and are near completion.

The department will continually review and update department goals, analyze trends within the EMS system, focus on education and training requirements and make necessary changes and revisions to maintain department effectiveness.

**1e) Optional Additional Data: Enter additional data here that you believe to be an indicator of your program's effectiveness and explain why.**

The department reports to the Fire Advisory Committee to ensure program consistency with National and State EMS training standards. An Ad Hoc committee was formed and comprised of local EMS managers and educators with an objective to identify, research, develop and propose improvements within the program.

The Ad Hoc committee is in the process of reviewing occupational needs and necessary educational requirements for new EMS professionals. These educational requirements are being identified as essential additions and improvements of the program.

**2) Relevancy: This section assesses the program's significance to its students, the college, and the community.**

**2a) How does your program fit within the district mission, as quoted below?**

*"Sierra College provides a challenging and supportive learning environment for students having diverse goals, abilities, and needs interested in transfer, career and technical training, and life long learning. The College's programs and services encourage students to identify and to expand their potential. Sierra College students will develop the knowledge, skills and abilities to become engaged and contributing members of the community."*

The Health Science Mission Statement parallels the same value of the District. Our courses provide an exceptional education for entry level careers in emergency medical services, public safety professions and other allied healthcare careers.

*The Mission of Health Sciences is to provide high quality education and training for individuals pursuing careers in Emergency Medical Services and Public Safety Occupations to update the knowledge and skills of working professionals and successfully prepare individuals for National Certification. We provide the curriculum for certificate programs approved by national and state agencies. We facilitate learning; using motivated and qualified instructors with significant experience in emergency medical services and provide an effective and innovative curriculum. We inspire change through promoting high standards and encouraging individual potential for success. Through education, partnerships and communication we build safer communities.*

**2b) Program fulfills the following categories (check all that apply):**

- Transfer                       Career Technical Education                       Lifelong Learning  
 Basic Skills                       Personal Development/Enrichment

**2c) Degrees, Certificates, Licenses, Transfer: Please address any of the following that apply to your program:**

- The number of degrees, certificates, and/or licenses your department has generated
- The alignment of these awards with the district’s mission and/or strategic goals. (See the district “Awards Data File, available from Research and Planning, for your numbers).
- Job placement or labor market information for your program’s awards and licenses.
- The contribution your program makes to student transfer.

The department does not offer an Associate Degree or a Certificate of Achievement. A 15 unit Skills Certificate has been researched and is pending submittal to curriculum.

Students completing HSCI 2/EMT qualify for the National Registry Examination and become eligible for National Certification and State licensing. National Certification is reciprocal in 48 states, allowing students to qualify for job placement outside California. Sierra College students generally take the national exam with 10 days of completing the course with an 87% pass rate on first attempt.

**2d) Optional Additional Data: Comment on any other relevance to district goals, mission, values, strategies, etc., that your program provides that are not incorporated in the answers above. Consider, for example, contributions to diversity, campus climate, cultural enrichment, community ties, partnerships and service, etc. Include specific data and examples.**

Sierra College EMT students have consistently exceeded the national average for successfully passing the National Registry exam on the first and second attempt. From spring 2009 to fall 2011 there were 589 National Registry Certifications awarded to Sierra College Students.

Following success rates are from spring 2009 to fall 2011.

- National average NREMT first time pass rate: 67%
- Sierra College average NREMT first time pass rate: 87%
  
- National average NREMT pass rate after 2 attempts: 78%
- Sierra College average pass rate after 2 attempts: 91%
  
- Sierra College students attempting NREMT exam: 645
- Sierra College students Awarded NREMT Certificates: 589

**3) Currency: This category assesses the currency of program curricula as dictated by Title 5 and the currency of efforts in meeting accreditation standards as well as improving pedagogy and engaging in professional development.**

**3a) Curriculum: Considering the information provided on your Department Statistics Report (DSR), comment on the currency of your program's curricula. If your course currency is below 100%, describe why this is and your department's specific plans to remedy this problem.**

Curriculum Currency SP 2011 100%
-------------------------------------

The Currency of the Health Sciences Curriculum is 100%.

Department maintains current curriculum as required by the NREMT (National Registry of Emergency Medical Technicians), The State EMSA (Emergency Medical Services Authority) and S-SV EMS (Sierra-Sacramento Valley Emergency Medical Services).

The National Registry standards by which the program curriculum is determined is an ongoing process of review and evaluation. Faculty attends county and state wide meetings and receives regular updates from the agencies. The EMSA has recently adopted curriculum changes by the NREMT and expect to have them released in the near future for implementation.

**3b) Student Learning Outcomes Assessment: Considering the information provided on your Department Statistics Report (DSR), comment on your program's progress in assessment of SLOs, analysis of results, and improvements/changes made to the program.**

All five (5) of the Program Outcome Assessments were completed this fall 2011 and all five (5) assessments achieved the desired criterion. All assessed outcomes also met the standard recommendations and requirements of the National Registry curriculum.

The department will begin assessment of four other HSCI courses in the next year and will continue the ongoing program assessment of the EMT curriculum as per National Registry and State requirements.



**3c) Professional development: Describe how your department's planned activities and professional development efforts serve to improve teaching, learning and scholarship. Please be sure to include flex activities, departmental meetings and activities, conferences, and the like.**

HSCI instructors are professional Paramedics and hold titles of Fire Captain, Battalion Chief and EMS supervisors. Instructors regularly attend ongoing training and continuing education to maintain professional requirements which brings current up-to-date information back into the classroom, as well as substantial EMS field experiences to share with students.

Instructors are also consistent members of hiring committees and interview panels. They bring key points back into the classroom for future candidates as well as current hiring practices and desired qualifications of major EMS employers.

The department conducts several staff meetings each semester and maintains ongoing levels of communication to ensure instructional consistency and review of instructional methodology.

- 4) **Resources:** This category assesses the adequacy of current resources available to the program and describes and justifies the resources required to achieve planning goals.

Health Sciences		Business, Applied Academics, and Physical Education					
HSCI	Fall 08	Spring 09	Fall 09	Spring 10	Fall 10	Spring 11	3 Yr Avg
FTES	61	65	64	67	61	64	64
WSCH	1,896	1,999	1,990	2,064	1,877	1,985	1,968
FTEF Total	3.6	3.6	3.2	3.7	3.6	3.7	3.6
Efficiency (WSCH/FTEF)	525	549	626	553	515	532	550
Fill Rate	86.9%	94.7%	96.7%	103.9%	95.5%	94.7%	95.4%
AveSize	36.5	38.3	36.2	36.3	29.2	36.9	35.6
Enrollment End of Courses	434	574	434	508	442	517	485
NumberOfSections	13	15	12	14	14	14	14
Department Retention	75%	80%	82%	90%	84%	83%	82%
Department Success	65%	73%	70%	80%	70%	73%	72%
(28, 95,450 and 800 Courses are removed from Totals)	0	0	0	0	0	0	0
Enrollment by Location	Fall 08	Spring 09	Fall 09	Spring 10	Fall 10	Spring 11	3 Yr Avg
District Total	474	574	434	508	442	517	492
Roseville Gateway	324	330	332	298	299	326	318
Rocklin Campus			-	87	34	86	52
Tahoe Truckee	66	78	63	83	70	62	70
Western Nevada County	55	38	39	40	39	43	42
Distance Learning	-	-	-	-	-	-	-
Ethnicity	Fall 08	Spring 09	Fall 09	Spring 10	Fall 10	Spring 11	3 Yr Avg
African American Retention	63%	50%	67%	82%	86%	83%	72%
African American Success	50%	50%	50%	73%	86%	83%	65%
Hispanic Retention	62%	68%	74%	95%	82%	82%	77%
Hispanic Success	54%	61%	50%	82%	67%	61%	62%
District Retention	84%	83%	86%	84%	85%	86%	85%
District Success	68%	69%	71%	70%	70%	72%	70%
District Efficiency	506	500	518	526	513	507	512
District Fill Rate	95.7%	93.8%	97.0%	99.0%	98.6%	99.1%	97.2%
FTEF Load Type	Fall 08	Spring 09	Fall 09	Spring 10	Fall 10	Spring 11	2 Yr Avg
FT			0.00	0.00	0.60	0.80	0.35
PT			3.18	3.73	3.05	2.93	3.22
OV			0.00	0.00	0.00	0.00	0.00
<b>Total FTEF</b>			<b>3.18</b>	<b>3.73</b>	<b>3.65</b>	<b>3.74</b>	
Obligation Numbers	Fall 08	Spring 09	Fall 09	Spring 10	Fall 10	Spring 11	2 Yr Avg
FT			0%	0%	25%	25%	13%
PT			100%	100%	75%	75%	87%
Staff Headcount	Fall 08	Spring 09	Fall 09	Spring 10	Fall 10	Spring 11	
FT					1		
PT					9		
Budget Information	2010		2011				
Health Science	Account	Actuals	Unaudited				
125100	1000	\$ 8,692.63	\$ 6,842.81				
	2000						
	3000	\$ 1,009.03	\$ 903.05				
	4000						
	5000						
	6000						
	7000						
8000							
<b>Total Budget</b>	<b>\$</b>	<b>9,701.66</b>	<b>\$</b>	<b>7,745.86</b>			

**4a) Please describe the future direction and goals of your program in terms of sustaining or improving program effectiveness, relevance, and currency.**

The department is researching the implementation of a new paramedic program and has received strong support from the Fire Advisory Committee. The Ad Hoc committee was formed and directed to research the feasibility of a program and develop a proposal.

Implementing a Paramedic Training program will bring the department up to current industry standards and complete the educational demands required to start a career as a professional Firefighter or a career in Emergency Medical Services.

Offering a paramedic program would allow students to complete their education at Sierra College and earn a measurable Associates Degree or Certificate of Achievement.

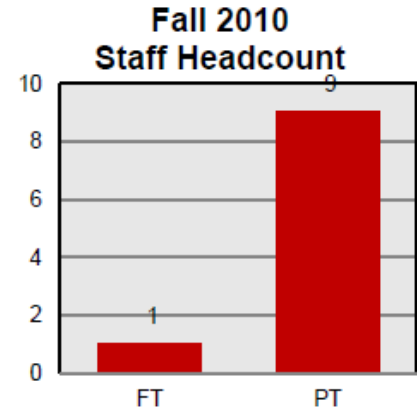
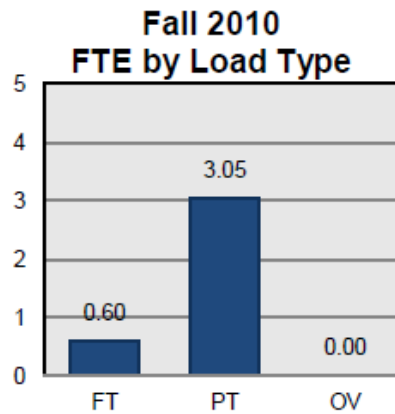
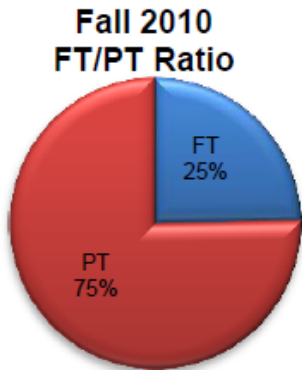
**4b) Equipment and Technology: Comment on the adequacy of the program's equipment and technology funding level for the District as well as specific sites. Include a projection of equipment and technology needs for the next three years as well as a justification for needs.**

RG and TTC classrooms both have "Smart Classroom" technology. NCC does not have "Smart Classroom" technology and the instructor is limited to different teaching resources.

Present equipment needs are minimal. Storage issues, heavy use and lack of maintenance will accelerate the replacement schedule. Current equipment will need replacement in 2-4 years from extensive use and will require additional capital.

State-of-the-art equipment was recently purchased through CTE funds and current equipment will support a new paramedic program. Additional training equipment and medical supplies will still be required. New equipment might be available with CTE funding.

4c) Staffing: Comment on the adequacy of your program’s faculty, classified, and student help staffing levels for the overall District as well as specific sites. Include a projection of staffing needs for the next three years and justification for any increases.

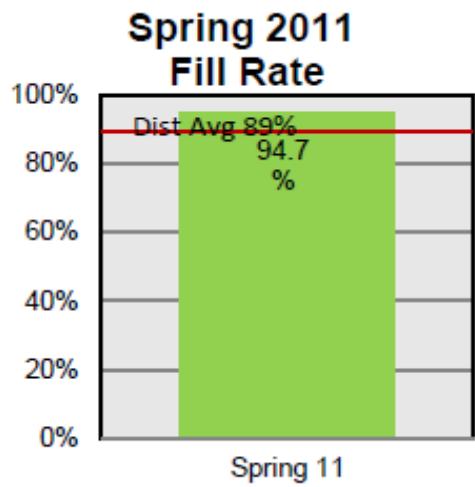


The ratio for Full Time to Part Time instructors is adequate.

The program relies heavily on temporary Instructional Assistants (IA’s) for skills training, labs and final skills testing. IA’s are extremely important to the success and quality of the program. National Registry and the EMSA require that a 1-5 ratio for IA-to-students be maintained for all skills training.

Recruitment for new volunteer IA’s is a yearly requirement with an ongoing task of training and establishing commitment. Allotted compensation budgeted for adequate IA staffing is severely deficient and requests have been unsuccessful each year to increase the compensation amount.

4d) Facilities: Comment on the program’s fill rate and the adequacy of the facilities for the District as well as specific sites. Include a projection of facility needs for the next three years as well as a justification for any increases.



The TT and NCC campuses have large classrooms as well as adequate storage and seating capacity. Available space for skills training and vehicle extrication also meet the programs curriculum needs for teaching extrication rescue techniques.

The RG and TT campus are equipped with “Smart Classroom” technology. The NCC classroom does not have “Smart Classroom” technology and the instructor is very limited to additional teaching resources.

The RG classroom has six breakout rooms for skills but limited storage for equipment. Wear and tear of the classroom has been significant and function and appearance has been compromised. Vehicle extrication training has been severely compromised due to facility restrictions and liability concerns imposed on the program.

## 5) Summary/Closing

5a) Evaluate the program's strengths, weaknesses, opportunities, and challenges. (Limit responses to 250 words or fewer.)

### STRENGTHS

- Faculty are Professional and highly experienced instructors within the industry
- Strong collaboration with Local Fire Agencies, Hospitals and EMS Providers.
- Exceptional reputation for quality of training and student success in field.
- One of the highest state and national success rates for passing NREMT exam.
- One of the highest numbers of National Certifications and State Licenses awarded.
- Meets/exceeds district enrollment, retention and success rates.
- High student success rate at other community colleges and vocational institutions.

### WEAKNESSES

- Program does not offer a Paramedic training program
- Program does not offer complete educational requirements for professional career.
- HSCI and Fire Tech students are severely limited in the professional job market.
- Inadequate Facilities for Department growth or program improvement.
- Inadequate Facilities for EMS field scenario and rescue training exercises.
- Lack of additional Administrative / Instructional assistance for the program.
- Inadequate funding for instructional assistants required for EMT skills training.
- High student transfer rate to other community colleges and vocational institutions.

### OPPORTUNITIES & CHALLENGES

- Development and Implementation of a recognized Paramedic training program.
- Development of a Health Science Associate Degree or Certificate of Achievement.
- Increase Administrative / Division Support to bring program up to industry standard.

**5b) Please provide any other information the Program Review Committee should consider that was not expressed in questions above.**

The Health Sciences program has unfortunately been suppressed and has failed to grow or expand with the pre-hospital care industry. Professional Fire Agencies and Private sector EMS providers have established the paramedic level-of-care as an industry standard over the past 10 years and require a paramedic certification as the benchmark standard for career level employment.

Sierra College students that are pursuing careers in Emergency Medical Services or have completed the Regional Fire Academy are limited to short term internships, seasonal employment or part-time shift work. These students are left stranded with an incomplete education and are forced to complete the paramedic level training at other institutions; commonly private sector with significant tuitions fees and no financial aid. Many students are forced to postpone their career goals due to funding and lose their competitive ability due to extended gaps in their primary training.

**5c) How has the author of this report integrated the views and perspectives of those who have interests in the future of this program, e.g. full time and part time faculty, educational administrators, instructional assistants, classified staff, and students at Rocklin, Roseville Gateway, NCC and/or Tahoe Truckee?**

The process of obtaining feedback and integrating the views and opinions of part-time faculty was compromised due to time constraints.