

Program Review Academic year 2011-2012

Fire and Emergency Technology

**Robert Morris for El Camino College
Compton Center**

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I. Overview

A. Description of Program

The Fire and Emergency Technology Department at El Camino College was initiated in 1977 in response to a need expressed by the Fire Chiefs of the South Bay Fire Departments. It was called the Fire Science program and began with four classes in four sections for the Fall semester, 1977. The primary purpose of the program at this time was to upgrade employed fire personnel. The mission statement for the FETC program is to offer quality, comprehensive educational and training services to ensure the educational and vocational success of students from our diverse community.

By 1983 Cooperative Career Education, an Associate in Arts degree and Emergency Medical Technician (EMT-1) had been added to the curriculum. The classes offered were expanded to Fire Science 1, 2, 3, 4, 5, 6, 7, 95bcd and all became transferable to California State University at Los Angeles. 1. At about this period a change in the student population of the program was noted. The students had become primarily pre-employment students and were taking the classes to prepare for the job of professional firefighter.

At the decades end, a Certificate of Completion and a Certificate of Competence were available to students who completed the eight core classes. The name of the program became Fire and Emergency Technology and students in the EMT-1 classes were offered certification as a Los Angeles County Emergency Medical Technician upon successfully passing the L.A. County examination.

In 1989, El Camino College took the South Bay Fire Academy in Inglewood under its auspices. The college rented the Academy site from the City of Inglewood and the instructors became employees of the college. The name was changed to The Los Angeles Regional Fire Academy at El Camino College and Community College credit was issued to graduates. 2. The academy students were generally a mix of already hired new firefighters and El Camino College Fire Technology students. By 1992, the Academy classes were almost exclusively pre-employment students. The local Fire Departments realized the advantages of hiring personnel who had already proved themselves by passing the rigorous training and many began to restrict their recruiting to Community College Academy graduates. In response to requests from the El Camino College Fire and Emergency Technology Advisory Committee, ten California State Fire Officer Training courses were added in 1993. Completion of these courses, together with a rather large fee, allows a student to become a certified "State of California Fire Officer".

As a result of the Inglewood Fire Department merging with Los Angeles County Fire Department in 2001, the Academy grounds became surplus property and the College was in danger of losing our Academy location. El

Camino College, through the “Partnership for Excellence” grant funding, purchased the Academy grounds, buildings and equipment.

In 2004, after the cancellation of a previously approved State grant, the college purchased an internationally recognized “Flash Chamber” for the Academy.³ In addition to the four Academies each year, over 500 local professional firefighters have received this specialized training. The El Camino Fire Academy is also used regularly by Police Departments for high angle training and the United States Coast Guard for Homeland Security classes.

EL CAMINO COMPTON CENTER

In contrast, at El Camino College Compton Center FETC courses have been offered since 2007. Previously the Compton Community College with cooperation of Compton Fire Department has been offering fire courses and a fire academy. The original CSFM approved firefighter level 1 academy was co-sponsored by the Compton Fire Department and the Compton Unified School District Regional Occupational Program (ROP). A Compton Fire Battalion Chief of training headed the development and implementation of the Fire Technology and Education Programs dating back to the mid-1980. Through the combined efforts of Compton Fire Department and Compton Unified School District (ROP), the first Compton Fire Academy applied for and received accreditation as a Regional Fire Academy. During the mid 1990’s, The Compton Fire Department applied for and received re-accreditation as a Regional Fire Academy with Compton Community College and graduated eighteen training classes to date.

On June 30, 2006, Assembly Bill 318 provided a state loan of \$30 million to the Compton Community College District and required the Fiscal Crisis and Management Assistance Team (FCMAT) to conduct a comprehensive assessment of the Compton Community College District in five operational areas to develop a recovery plan for the district. Subsequent to the passage of AB 318, the Accrediting Commission for Community and Junior Colleges reported that Compton Community College did not meet accreditation standards and formally withdrew accreditation from the college in August 2006. The district has provided uninterrupted educational services for the students by partnering with the El Camino Community College District in which the James Shern Firefighter Academy operated under until its last class in spring of 2007. After being stagnant for several years, the Compton Fire Department has made the decision to re-establish and continue the James Shern Firefighter Academy.

B. Degrees/Certificates offered at El Camino College Compton Center

The Fire and Emergency Technology program has several fire service educational goals that students can select depending upon their own choices and abilities:

Certificate of Completion

Issued upon completion of the eight core classes.⁴

Associate of Science

Issued upon completion of the eight core and the general education classes

Basic Fire Academy

California State Fire Marshal certificate issued upon completion of the 400 hour course.

Fire Paramedic Training

These courses are conducted at Los Angeles County Paramedic Training Institute. The class is available to students after they complete the Fire Academy. Professional Fire Departments may sponsor students without prerequisites.

Note: The FTEC students at the Compton Center must complete the above programs at El Camino College

Matriculation to a Bachelor of Arts Program

Only Cal State Los Angeles offers a Bachelor degree in Fire Tech however, both Long Beach and Dominguez Hills offer Public Admin majors that articulate with our program.

Continuing Education for Professional Firefighters.

These classes are California State Fire Marshal Officer classes and are offered only upon request from the Department Advisory Committee.

'In-Service Training' for Professional Firefighters.

This training is presented by board approved on-duty firefighters through a FTES sharing program.

C. Status of Previous Recommendations

El Camino College Compton Center

There are no previous recommendations

II. Analysis of Institutional Research Data

A. Course grade distribution; success and retention rates

The course grade distribution, success rate and retention rate data as provided by Institutional Research shows that in FTEC the distribution of grades has improved slightly over the surveyed years. The success and retention rates for FTEC has improved for each year surveyed.

In analyzing the data it was noted that the FTEC sections, FTEC 140/141 had the worst success rate of all offerings. This is due to National/State/County requirements the 'passing grade' is a B or better and the new education standards that are being implemented.

B. Enrollment statistics, fill rates at El Camino Compton Center

The data shows 47% of the FTEC students are in the age range of 18-24.

The data shows 96% of the FTEC students are Male.

The data shows 45% of the FTEC students are African-American

The data shows 37% of the FTEC students are Latino

The data shows 07% of the FTEC students are Asian

The data shows 19% of the FTEC students are enrolled Full-time.

The data shows 07% are in pursuit of a Degree or Certification.

The data shows 32% intend to transfer.

The data provided by IR for seat counts and fill rates do not reflect the actual circumstances due to the inclusion of 'In-Service' training sections. These sections do not have a 'set' seat count and as a result are arbitrarily assigned a seat count of 99.9. In actual observations of all on-campus FTEC

offerings over the survey years, the sections were all fully enrolled with waiting lists of 10 students with additional 10 or more students hoping to add.

C. Improvement Rates

FTEC 1 has shown over the surveyed years of 2007 to 2010 has improved success rate from 32% to 49% and the retention rate has improved from 50% to 97%

FTEC 2 has shown over the surveyed years of 2008 to 2010 has improved success rate from 70 % to 72% and the retention rate from 80% to 100%.

FTEC 140 has shown over the surveyed years from 2008 to 2010 has improved success rate from 10% to 37% and retention rates from 39% to 80%.

FTEC 141 has shown over the surveyed years from 2008 to 2010 has improved success rate from 11% to 51% and the retention rate from 43% to 78%

FTEC 15 no change offered only 2010 with 100% success and retention rate.

D. Recommendations

1. FTEC 1 needs to be 'targeted' for improving the success rate. Due to the large number of 'first semester' students more emphasis may need to put on the basics of collegiate success strategies. Class time could be provided for counseling to conduct some workshops to guide the new students for better success.
2. FTEC 140/141 will be increasing to a 160 classroom hours to include the new EMT educational standards. It is recommended that a prep course being a prerequisite prior to enrolling in FTEC 140/141. Also for better success rates offer it two days per week instead a long one day per week. It is also recommended that an Emergency Medical Responder course be recommended prior to taking the EMT 140/141. Studies have shown a 50 percent student success rate in EMT 140\141.
3. FTEC needs to work more closely with IR to come up with more representative data for the next review. The complexities of FTEC make it very difficult for IR to apply the basic data concepts used throughout the college.

III. Curriculum-Course, Content, and Articulation

FTEC Course offered at Compton Center

There are only few FTEC courses are offered at the Compton Center. FTEC 1, FTEC 2, FTEC 140/141. FTEC 140/141 and FTEC 1 are required minimum courses to apply to the El Camino College Fire Academy. But the 5 other FTEC courses have to be taken at EL Camino College to obtain a certificate or degree. On successful completion of EMT 140/141 Compton Center students receive a "Certification of Completion", which allows them to take the National Registry Exam and apply for their Emergency Medical Technician License. Plus the Paramedic Program and other additional courses are offered at El Camino College.

Curriculum Recommendations for Compton Center

1. **Offer Basic 8 Core Courses to Obtain Certificate or completion or Associates Arts Degree**
 - A. FIRE TECHNOLOGY 1 (*Fire Protection Organization-currently being offered*)
 - B. FIRE TECHNOLOGY 2 (*Fire Prevention Technology- currently being offered*)
 - C. FIRE TECHNOLOGY 3 (*Firefighter Safety and Survival*)
 - D. FIRE TECHNOLOGY 4 (*Fire Company Organization and Management*)
 - E. FIRE TECHNOLOGY 5 (*Fire Behavior and Combustion*)
 - F. FIRE TECHNOLOGY 6 (*Building Construction in the Fire Service*)
 - G. FIRE TECHNOLOGY 7 (*Fire Protection Engineering*)
 - H. FIRE TECHNOLOGY 140/141lab (*Emergency Medical Technician currently being offered*)

2. **Offer A Part-Time Fire Academy**

After being stagnate for several years, the Compton Fire Department has made the decision to re-establish and continue the James Shern Firefighter Academy. Base on the uncertainties of Compton Community College District, We are requesting to reestablish Fire Academy accreditation under El Camino College, with the Fire Academy being hosted at the Compton Educational Center.

The original curriculum taught was 160 hours as endorsed by CSFM. Through the years, developments in the CSFM approved curriculum, as well as advances in the fire service profession have mandated an increase in the hours and introduction of new disciplines. Today the Academy curriculum reflects these changes. Also, outside influences, such as Cal-OSHA and Fed-OSHA to name a couple has a direct effect on what must be taught to recruit fire fighter trainees. To compete in today's fire service field, new recruits must perform and be educated in skills in addition to those originally designated by the CSFM; such as Hazardous Materials; Confined Space Awareness; Urban Search & rescue and Blood Borne Pathogens. Today firefighters must be certified to the Operational Level as Hazardous Materials & Incident commands systems, Emergency Medical Technicians in order to operate on a first response engine or truck-company with a municipal department. These additional course hours of training above and beyond the approved CSFM certified training. Presently the James H. Shern Fire Academy curriculum reflects the new standards of 360 of required State fire training, and additional hours for other recruit level certifications.

The Academy firefighter 1 entry level training will consist of intensified training, consisting of 18 + hours per week in an effort to complete the Fire Academy with the Semester. . The classroom instructions will be taught two days a week in the evenings, with drill ground training schedule for Saturdays & Sundays from 0700 to 1700. This training program allows candidates to maintain their present employment and attend the fire academy without experiencing financial hardship.

IV. Student Learning Outcomes (SLO's)

The FTEC Department has written and submitted proposals for Student Learning Outcomes for each of our courses. The FTEC 4 year Timeline for Course and Program Level SLO assessments is in Appendix E.

Compton Center Fire Technology

FTEC 1

The Student will be able to identify a minimum of three fire protection career opportunities and the skills and training needed.

FTEC 140

Given a total of seven multi-chapter exams and a cumulative final exam, the student must obtain an 80% overall average to receive a Course Completion Certificate. Students scoring lower than 80% receive a grade, but would have to retake the course to earn a certificate.

FTEC 141

This lab portion of the EMT-Basic course is combined with the lecture section, the student must obtain an 80% overall average in both lecture and lab to receive a Course Completion Certificate. Students scoring lower than 80% receive a grade, but would have to retake the course to earn a certificate. In this lab, the student learns, and show proficiency in a series of practical skills which are required by State and County as necessary for a practicing EMT-Basic.

FTEC 15

Students will define fire department organization and culture, and the expectations of entry-level fire department personnel.

FTEC 2

The Student will be able to define the historical fire problem and progress of fire prevention in the United States.

FTEC 5

1. After the course of instruction the student will be able to recognize the terms and concepts related to fire behavior and chemistry.
2. The Student will be able to identify the 3 physical states of matter and their physical properties.

The summary of the assessment results shows an increase degree of student success overall. Some minor changes such as devoting more lecture time to certain subjects have been implemented and will be assessed in the future to determine the effectiveness of the changes.

V. Facilities, Equipment, and Technology

Compton Center

The FTEC on-campus courses are conducted in VOTEC 215. The classroom was converted from a computer room to having 45 individual desks, an overhead projector, a media system (sound, video, DVD) and a desktop computer. There is a EMT equipment room and office. The classes use PowerPoint presentations, instructional videos/DVD's and old fire equipment used for visual aids

Recommendations

El Camino College Compton Center

1. Add a second classroom with multi-media, projector, computer, equipment room and office
2. The Compton Fire Department and El Camino College Compton Education Center will provide the facilities and equipment necessary to support the academy program. Available to staff are computers, apparatus, tools, simulators, supplies and equipment sufficient to support the programs needs. The Compton Fire Department will provide and make available Fire Station 3 when needed located at 1133 W. Rosecrans Ave, for fire ground training. The facility house several reserved fire engines, two ladder trucks, firefighting equipment and a classroom that will seat 40 students.

Additionally;

- Arrangements for resources with other agencies will be clearly delineated in a written policy agreement/contract.
- Classrooms, training towers, burn rooms, storage facilities are sufficient in quantity and quality to meet the needs of the instructional staff and the objective of the program
- Expendable supplies will be sufficient to meet the needs of the fire academy program,
- Equipment for students, staff and training aides will be sufficient in quantity and/or quality to meet the needs of the program.
- All personal protective clothing, apparatus, and equipment will be properly maintained and readily accessible to the instructional staff and student in full compliance with local agencies.

The Compton Fire Department's Training Facility is currently located on approximately 3.5 acres of land. The facility is a state of the art training center. The facility includes a 4 story concrete building designed for modern fire fighting training, search and rescue, and repelling. A fire stimulator, large classroom; completely outfitted with audio/video equipment, an asphalt "drill ground" suitable for driver training and/or other fire service related manipulative exercises. The Facility also has an administrator's office, training office, office for instructors, supply room, lunch room, receptionist area and a library supplied with California State Fire Marshals Office instructors lesson plans, IFSTA text books, video tapes for each chapter in the book, overhead transparencies and handout material.

The James H. Shern Fire Academy is supplied by the Compton Fire Department with two reserve fire engines one reserve ladder truck, fire hose, nozzles, wooden ladders, aluminum ladders breathing apparatus, turnout coats, helmets, hose appliances power tools, USAR equipment, smoke machines, and miscellaneous equipment and tools in sufficient quantity and quality to meet the needs of students and instructors.

The James H. Shern Academy has access to a graphic and media services through Compton Fire Department Training Center and El Camino College Compton Educational Center which maintains a video and 35mm cameras for use by instructors. The Compton Fire Departments Training Center has 2 satellite dishes, a complete video editing system, 5 T.V.s, 4 VCRs, an overhead projector, slide projectors, as well as chalk boards.

The James H. Shern Fire Academy maintains a sufficient budget for consumable supplies to meet the needs of the program. All of the equipment provided for the training facility and staff is properly maintained and readily accessible to the instructors and students. We will insure that all personal protective clothing, apparatus, and Equipment.

3.

VI. Staffing

Current Staffing

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Currently the FTEC program has 3 part-time Faculty. Due to the state requirements the EMT 140/141 class it also includes 3 skills instructional aides.

Current Needs

Currently all authorized positions are filled.

Recommendations at El Camino Compton Centetr

1. If added a Emergency Medical Responder Course- Equals 3 part-time instructors or 1 full time Faculty and 2 part-time instructors
2. If added 8 basic FTEC courses- equals 1 full-tme faculty, 3 part-time instructors and a part-time secretary to manage the complexity and demands of multiple programs running within the mantle of FTEC
3. Plus a Fire Academy- equals to 4 additional part-time instructors and a full-time secretary to handle not only the complexity and demands of multiple programs running within the mantle of FTEC But the immense amount of reporting requirements required by local and state agencies.

VII.Planning

Changes and/or Trends Impacting the Program

Due to budget cuts the El Camino Fire Academy has had to drop the Part-time. This effectively cuts in half the number of graduates we can offer to the region employers. This leaves the Fire Academy facility unused for half the semester but the fixed costs continue. With cooperation of Compton Fire Department El Camino Compton Center could offer the part-time academy.

The on-campus offerings have also been cut by one course per semester due to budget cuts. This may have long term implications on students getting all of the required courses for the degree/certificate in a two year cycle.

The State Fire Marshall and the Department of Health Services continue to increase not only the mandatory courses but increase the numbers of hours required for certification. It is anticipated that this trend will continue into the foreseeable future.

Direction of the Program

The on-going need for Firefighters, Paramedics, EMT's and other Fire related occupations in our region is primarily based on retirements. Currently employers are riding out the current economy by delaying the hiring

of replacements for retirees. This is a position that can be maintained only for a few years before the number of unfilled positions causes burdensome levels of overtime. At this point hiring will accelerate.

Presently all of our courses are fully enrolled with full waiting lists and additional students wishing to add in the double digits. The waiting time from application to admittance to the Fire Academy is running two semesters.

Vision of the Program

The vision of the FTEC program is to prepare the Firefighters, Paramedics, EMTs and other First Responders to be able to meet the ever changing demands of the future. This will be accomplished by adopting new technologies and content into the FTEC program offerings.

Goals

The goals and objectives of the FTEC program are aligned the mission statement and the Strategic Initiatives of the College. We will continue to prepare the workforce of the future by providing a quality program that will allow our students achieve their personal goals of employment, promotion and articulation. By implementing and analyzing the results of our SLO's our program will continue to evolve. Close collaboration with our Advisory Committee will enable us to respond to changing Industry needs for our students.

VIII. Conclusion and Summary

Prioritized Recommendations

1. Start a Emergency Medical Responder course as a prep course FTEC 140/141.

Currently the Emergency Medical Technician has a 37% success rate. Studies have shown that an Emergency Medical Responder(EMR) prep course offered prior to EMT (140/141) has improved success rates to 87%

2. Offer the remainder 5 core classes to meet the requirements for a certification and Associates Arts Degree.

Currently the remainder of the 5 core classes has to be completed at El Camino College. Additional classroom will be needed. This would include hiring 2 extra adjunct instructors to meet the new core courses offered and a part-time secretary to enroll students and maintain records.

3. Re-establish the James H. Shern Fire Academy.

Base on the uncertainties of Compton Community College District, We are requesting to reestablish Fire Academy accreditation under El Camino College, with the Fire Academy being hosted at the Compton Educational Center. The academy will maintain a minimum staff of 4 primary and 10 assistant instructors. All primary instructors for the Academy will meet or exceed the minimum criteria for level 1 instructor as set forth by the California State Fire marshal's Office and the Community College System. The four primary instructors assist the administrative staff, and are assigned as mentors for new

instructors as well liaisons between the 10 assistant instructors and the Administrative officer in order to maintain a strong chain of command.

4. Hire an Administrative Officer:

With the direction of the Compton Fire Department and Dean of Vocational Technology, the administrative officer will assist with the coordination of the college ongoing fire technology courses each semester, assist with the coordination of all primary/part-time instructional staff of the James H. Shern Fire Academy program. The AO will assure that all instructional staff meets required minimum qualifications. The administrator will also be qualified to teach at all levels including, but not limited to entry-level firefighter training. The administrator is also responsible for obtaining all academy certifications and accreditation.

5. Annual Building Maintenance at Compton Fire station 3/ James Shern Fire Academy

Currently the aging physical plant of the Fire Academy is showing its age. An ongoing preventative maintenance program would greatly increase the expected life time of the facility. Some of this work could be done by the Facilities personnel and some of it would best be contracted out. The estimated budget for yearly maintenance would be approximately \$25,0000 year. Cost could be shared with the Compton Fire Department.

Summary

The FTEC program at Compton Center is limited courses but combined with El Camino College, including all of its elements, is considered by Fire Service personnel to be one of the Premier programs. Our graduates of both campuses courses and the Fire Academy are eagerly sought by the local agencies. With programs at other colleges declining and their students coming to us, we could realistically increase our offerings by 50% in the next 5 years. Unfortunately due to the physical constraints of the Fire Academy property we cannot increase our classes unless we offer a summer Academy. With the continued support of Administration the FTEC Department will do its best to provide our community with the best graduates we can. By adding the EMR course to improve EMT success rates and adding the part-time academy with cooperation with Compton Fire Department can fulfill the needs of El Camino College and the community.

IX. CTE Program Review

1. The occupational demand for graduates of the FTEC program is primarily driven by the retirements of active personnel in these occupations. According to the data provided by IR, the employment sector served by FTEC is expected to increase by 17.5% from 2006 to 2016.
2. Within the District boundaries are numerous Local agencies and County agencies along with private industry that needs trained first responders. The FTEC program addresses this need by supplying approximately 100 graduates of the Fire Academy each year and providing in-service training to 547 students per year plus approximately 60 students graduate as emergency medical technicians.

3. Within the State are numerous Local agencies and County agencies along with private industry that needs trained first responders. The FTEC program addresses this need by supplying approximately 100 graduates of the Fire Academy each year and providing in-service training to 547 students per year.
4. The FTEC program at El Camino College and Compton Center stands apart from other programs in that we provide a 'total package'AS degree, EMT Certification, Paramedic Certification, Fire Academy Certification.
5. Student satisfaction with our program is evidenced by the extremes they go through to be a part of our program. We have enrolled student who have come from as far south as San Diego to as far north as Santa Barbara. An example of Employer satisfaction is the fact that in a recent graduating class of new recruits for Los Angeles City Fire Department the top three graduates were El Camino students.
6. Completion success in FTEC can be difficult to measure due to the fact that some students will become employed after receiving their Emergency Medical Technician Certificate or completing their AS degree. Others may go through the whole process, AS degree, EMT Certification, Paramedic Certification, Fire Academy Certification and still not end up employed in the field. We have not found an accurate or easy way to track the employment rates for our students due to the fact that many leave the area in pursuit of employment.
7. The FTEC Advisory Board consists of the South Bay Fire Chiefs. This group not only includes all of the local agency Chiefs but also L.A. City FD and L.A.Co.FD and the Chief for Chevron refining. Also attending are representatives for numerous State agencies. We are very fortunate that this body meets once a month and El Camino has a seat at the table. We get monthly input on issues instead of having to wait for a once a year meeting. This group keeps us up to date on numerous issues that touch upon the training we provide.

Appendix A

Demographic and Enrollment Characteristics Compton-Fire Fall 2007 to Fall 2010

Characteristic	Category	Fall 2010										2010 Census	
		Fall 2007		Fall 2008		Fall 2009		Fall 2010		Compton		Compton District	
		n	%	n	%	n	%	n	%	n	%	n	%
All Enrolled	Total	17	100.0%	67	100.0%	76	100.0%	127	100.0%	8,734	100.0%	320,280	
Gender	Female	5	29.4%	16	23.9%	12	15.8%	14	11.0%	5,585	63.9%	165,483	51.7%
	Male	12	70.6%	51	76.1%	64	84.2%	113	89.0%	3,144	36.0%	154,797	48.3%
	Unknown	0	0.0%	0	0.0%	0	0.0%	0	0.0%	5	0.1%	0	0.0%
Ethnicity	African-American	9	52.9%	27	40.3%	37	48.7%	46	36.2%	3,889	44.5%	71,111	22.2%
	Amer. Ind. or Alaskan	0	0.0%	0	0.0%	0	0.0%	0	0.0%	12	0.1%	507	0.2%
	Asian	0	0.0%	3	4.5%	2	2.6%	5	3.9%	643	7.4%	6,791	2.1%
	Latino	7	41.2%	23	34.3%	27	35.5%	43	33.9%	3,196	36.6%	222,443	69.5%
	Pacific Islander	0	0.0%	1	1.5%	1	1.3%	0	0.0%	91	1.0%	1,783	0.6%
	White	0	0.0%	7	10.4%	6	7.9%	23	18.1%	422	4.8%	14,180	4.4%
	Unknown or Decline	1	5.9%	6	9.0%	2	2.6%	4	3.1%	261	3.0%	580	0.2%
Age/Age Group	Under 17	0	0.0%	1	1.5%	0	0.0%	0	0.0%	611	7.0%	102,775	32.1%
	17	1	5.9%	0	0.0%	0	0.0%	1	0.8%	418	4.8%		
	18	1	5.9%	11	16.4%	12	15.8%	15	11.8%	618	7.1%	12,161	3.8%
	19	1	5.9%	15	22.4%	9	11.8%	14	11.0%	788	9.0%		
	20	1	5.9%	6	9.0%	7	9.2%	11	8.7%	776	8.9%	5,750	1.8%
	21	6	35.3%	4	6.0%	10	13.2%	13	10.2%	645	7.4%		
	22	2	11.8%	3	4.5%	6	7.9%	9	7.1%	486	5.6%	15,852	4.9%
	23	0	0.0%	6	9.0%	3	3.9%	4	3.1%	442	5.1%		
	24	1	5.9%	5	7.5%	8	10.5%	13	10.2%	355	4.1%	24,075	7.5%
	25-29	2	11.8%	11	16.4%	13	17.1%	23	18.1%	1,305	14.9%		
	30-39	1	5.9%	5	7.5%	5	6.6%	20	15.7%	1,232	14.1%		

	40-49	0	0.0%	0	0.0%	3	3.9%	4	3.1%	696	8.0%	41,970	13.1%
	50-64	1	5.9%	0	0.0%	0	0.0%	0	0.0%	336	3.8%	43,435	13.6%
	65+	0	0.0%	0	0.0%	0	0.0%	0	0.0%	26	0.3%	23,146	7.2%
Class Load	Full-time	1	5.9%	18	26.9%	8	10.5%	47	37.0%	1,629	18.7%		
	Part-time	16	94.1%	49	73.1%	66	86.8%	79	62.2%	6,012	68.8%		
	Not enrolled or N/A	0	0.0%	0	0.0%	2	2.6%	1	0.8%	1,093	12.5%		
Time of Classes*	Daytime	0	0.0%	64	95.5%	68	89.5%	82	64.6%	6,095	69.8%		
	Evening	17	100.0%	3	4.5%	8	10.5%	45	35.4%	2,037	23.3%		
	Unknown	0	0.0%	0	0.0%	0	0.0%	0	0.0%	602	6.9%		
Academic Level	AA or Higher	1	5.9%	6	9.0%	0	0.0%	17	13.4%	909	10.4%		
	HS Graduate	16	94.1%	54	80.6%	70	92.1%	105	82.7%	6,310	72.2%		
	Not a HS Grad	0	0.0%	4	6.0%	3	3.9%	0	0.0%	315	3.6%		
	K-12 Special Admit	0	0.0%	0	0.0%	0	0.0%	0	0.0%	973	11.1%		
	Unknown	0	0.0%	3	4.5%	3	3.9%	5	3.9%	227	2.6%		
Educational Goal	Intend to Transfer	4	23.5%	17	25.4%	13	17.1%	36	28.3%	2,752	31.5%		
	Degree/Certif. Only	2	11.8%	5	7.5%	5	6.6%	12	9.4%	608	7.0%		
	Retrain/recertif.	6	35.3%	13	19.4%	13	17.1%	21	16.5%	484	5.5%		
	Basic Skills/GED	0	0.0%	4	6.0%	4	5.3%	7	5.5%	607	6.9%		
	Enrichment	1	5.9%	2	3.0%	2	2.6%	3	2.4%	280	3.2%		
	Undecided	3	17.6%	13	19.4%	13	17.1%	17	13.4%	1,480	16.9%		
	Unknown	1	5.9%	13	19.4%	13	17.1%	31	24.4%	2,523	28.9%		

Additional characteristics available upon request.

Appendix B

Course Grade Distribution and Success/Retention Rates

Fall 2007 to Fall 2010

Compton-Fire

Fall 2007

Course	A	B	C	P	D	F	I	NP	DR	W	Total Grades	Success Rate	Retention Rate
FTEC-1	2	2	2	0	1	3	0	0	3	4	17	35.3%	58.8%
	11.8%	11.8%	11.8%	0.0%	5.9%	17.6%	0.0%	0.0%	17.6%	23.5%			
Course Totals	2	2	2	0	1	3	0	0	3	4	17	35.3%	58.8%
	11.8%	11.8%	11.8%	0.0%	5.9%	17.6%	0.0%	0.0%	17.6%	23.5%			
Division Total/Avg	96	142	130	0	45	18	1	0	46	79	557	66.1%	77.6%
	17.2%	25.5%	23.3%	0.0%	8.1%	3.2%	0.2%	0.0%	8.3%	14.2%			
Center Total/Avg	1,761	1,840	1,586	484	402	400	40	43	645	2,288	9,489	59.8%	69.1%
	18.6%	19.4%	16.7%	5.1%	4.2%	4.2%	0.4%	0.5%	6.8%	24.1%			

Fall 2008

Course	A	B	C	P	D	F	I	NP	DR	W	Total Grades	Success Rate	Retention Rate
FTEC-1	2	2	3	0	3	1	0	0	2	9	22	31.8%	50.0%
	9.1%	9.1%	13.6%	0.0%	13.6%	4.5%	0.0%	0.0%	9.1%	40.9%			
FTEC-140	1	3	0	0	7	5	0	0	0	25	41	9.8%	39.0%
	2.4%	7.3%	0.0%	0.0%	17.1%	12.2%	0.0%	0.0%	0.0%	61.0%			
FTEC-141	1	3	0	0	6	6	0	0	0	21	37	10.8%	43.2%
	2.7%	8.1%	0.0%	0.0%	16.2%	16.2%	0.0%	0.0%	0.0%	56.8%			
FTEC-2	6	1	0	0	0	1	0	0	0	2	10	70.0%	80.0%
	60.0%	10.0%	0.0%	0.0%	0.0%	10.0%	0.0%	0.0%	0.0%	20.0%			
Course Totals	10	9	3	0	16	13	0	0	2	57	110	20.0%	46.4%
	9.1%	8.2%	2.7%	0.0%	14.5%	11.8%	0.0%	0.0%	1.8%	51.8%			
Division Total/Avg	216	276	130	0	88	54	0	0	24	242	1,030	60.4%	74.2%
	21.0%	26.8%	12.6%	0.0%	8.5%	5.2%	0.0%	0.0%	2.3%	23.5%			
Center Total/Avg	2,303	2,209	1,686	842	652	843	95	34	875	2,766	12,305	57.2%	70.4%

	18.7%	18.0%	13.7%	6.8%	5.3%	6.9%	0.8%	0.3%	7.1%	22.5%		
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Fall 2009

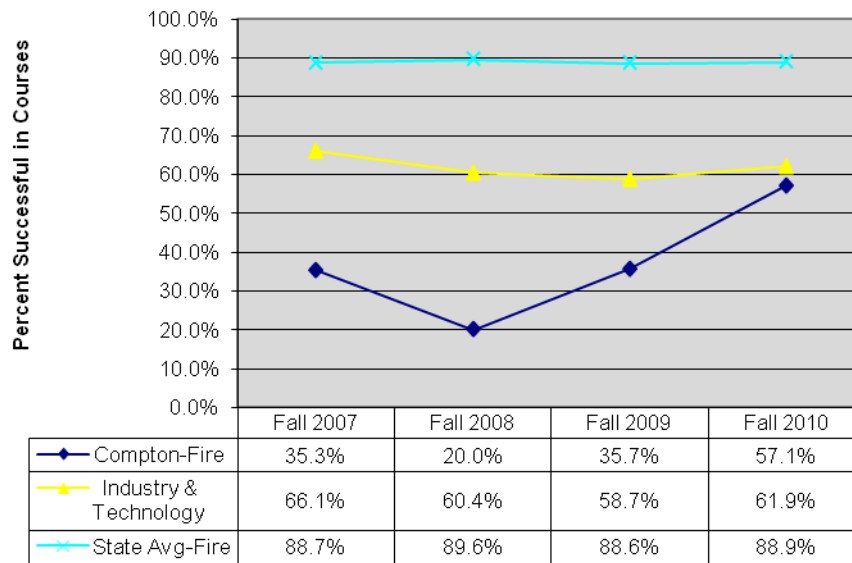
Course	A	B	C	P	D	F	I	NP	DR	W	Total Grades	Success Rate	Retention Rate
FTEC-1	1	5	5	0	4	1	0	0	3	10	29	37.9%	55.2%
	3.4%	17.2%	17.2%	0.0%	13.8%	3.4%	0.0%	0.0%	10.3%	34.5%			
FTEC-140	2	5	6	0	3	2	2	0	0	20	40	32.5%	50.0%
	5.0%	12.5%	15.0%	0.0%	7.5%	5.0%	5.0%	0.0%	0.0%	50.0%			
FTEC-141	7	6	3	0	2	2	0	0	0	19	39	41.0%	51.3%
	17.9%	15.4%	7.7%	0.0%	5.1%	5.1%	0.0%	0.0%	0.0%	48.7%			
FTEC-2	0	0	0	0	0	0	0	0	2	2	4	0.0%	0.0%
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	50.0%			
Course Totals	10	16	14	0	9	5	2	0	5	51	112	35.7%	50.0%
	8.9%	14.3%	12.5%	0.0%	8.0%	4.5%	1.8%	0.0%	4.5%	45.5%			
Division Total/Avg	202	217	196	0	57	78	2	0	91	204	1,047	58.7%	71.8%
	19.3%	20.7%	18.7%	0.0%	5.4%	7.4%	0.2%	0.0%	8.7%	19.5%			
Center Total/Avg	3,139	2,852	2,447	1,141	786	1,092	155	51	1,270	3,252	16,185	59.2%	72.1%
	19.4%	17.6%	15.1%	7.0%	4.9%	6.7%	1.0%	0.3%	7.8%	20.1%			

Fall 2010

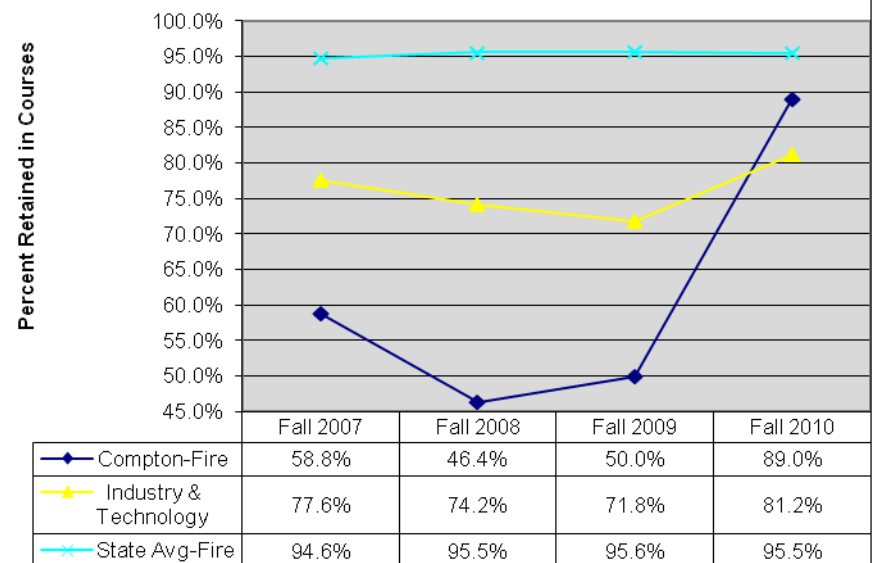
Course	A	B	C	P	D	F	I	NP	DR	W	Total Grades	Success Rate	Retention Rate
FTEC-1	2	4	13	0	9	10	0	0	0	1	39	48.7%	97.4%
	5.1%	10.3%	33.3%	0.0%	23.1%	25.6%	0.0%	0.0%	0.0%	2.6%			
FTEC-140	3	13	0	0	5	15	0	0	1	8	45	35.6%	80.0%
	6.7%	28.9%	0.0%	0.0%	11.1%	33.3%	0.0%	0.0%	2.2%	17.8%			
FTEC-141	14	6	3	0	5	7	0	0	2	8	45	51.1%	77.8%
	31.1%	13.3%	6.7%	0.0%	11.1%	15.6%	0.0%	0.0%	4.4%	17.8%			
FTEC-15	23	5	0	0	0	0	0	0	0	0	28	100.0%	100.0%
	82.1%	17.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
FTEC-2	15	2	1	0	2	5	0	0	0	0	25	72.0%	100.0%
	60.0%	8.0%	4.0%	0.0%	8.0%	20.0%	0.0%	0.0%	0.0%	0.0%			

Course Totals	57	30	17	0	21	37	0	0	3	17	182		
	31.3%	16.5%	9.3%	0.0%	11.5%	20.3%	0.0%	0.0%	1.6%	9.3%		57.1%	89.0%
Division Total/Avg	292	252	195	0	99	128	3	0	50	174	1,193		
	24.5%	21.1%	16.3%	0.0%	8.3%	10.7%	0.3%	0.0%	4.2%	14.6%		61.9%	81.2%
Center Total/Avg	4,245	3,527	2,955	1,264	1,086	1,505	6	82	1,100	3,772	19,542		
	21.7%	18.0%	15.1%	6.5%	5.6%	7.7%	0.0%	0.4%	5.6%	19.3%		61.4%	75.1%

Compton-Fire Success Rates
Fall 2007 to Fall 2010



Compton-Fire Retention Rates
Fall 2007 to Fall 2010



Demographic and Enrollment Characteristics													
FTEC 1													
Fall 2006 to Fall 2009													
Characteristic	Category	Fall 2006		Fall 2007		Fall 2008		Fall 2009		Fall 2009		2000 Census	
		ECC		ECC District		ECC		ECC District		ECC		ECC District	
		n	%	N	%	n	%	n	%	n	%	n	%
All Enrolled	Total	111	100.0%	203	100.0%	188	100.0%	83	100.0%	27,271	100.0%	520,376	100.0%
Gender	Female	5	4.5%	4	2.0%	6	3.2%	2	2.4%	14,312	52.5%	264,871	50.9%
	Male	106	95.5%	199	98.0%	182	96.8%	81	97.6%	12,953	47.5%	255,505	49.1%
	Unknown	0	0.0%	0	0.0%	0	0.0%	0	0.0%	6	0.0%	0	0.0%
Ethnicity	African-American	7	6.3%	11	5.4%	14	7.4%	5	6.0%	4,577	16.8%	88,701	17.0%
	Amer. Ind. or Alaskan	1	0.9%	2	1.0%	2	1.1%	1	1.2%	100	0.4%	1,219	0.2%
	Asian	7	6.3%	6	3.0%	11	5.9%	5	6.0%	4,539	16.6%	58,779	11.3%
	Latino	28	25.2%	54	26.6%	45	23.9%	18	21.7%	9,466	34.7%	157,138	30.2%
	Pacific Islander	5	4.5%	2	1.0%	3	1.6%	2	2.4%	257	0.9%	2,061	0.4%
	White	52	46.8%	106	52.2%	94	50.0%	40	48.2%	5,236	19.2%	197,570	38.0%
	Unknown or Decline	11	9.9%	22	10.8%	19	10.1%	12	14.5%	3,096	11.4%	0	0.0%

Age/Age Group	Under 17	0	0.0%	0	0.0%	0	0.0%	0	0.0%	572	2.1%	139,140	26.7%
	17	0	0.0%	0	0.0%	0	0.0%	0	0.0%	758	2.8%		
	18	0	0.0%	0	0.0%	0	0.0%	0	0.0%	3,326	12.2%	11,840	2.3%
	19	1	0.9%	2	1.0%	3	1.6%	1	1.2%	3,678	13.5%		
	20	3	2.7%	8	3.9%	4	2.1%	2	2.4%	2,977	10.9%	5,996	1.2%
	21	3	2.7%	6	3.0%	6	3.2%	1	1.2%	2,305	8.5%		
	22	1	0.9%	6	3.0%	7	3.7%	1	1.2%	1,677	6.1%	20,233	3.9%
	23	1	0.9%	3	1.5%	6	3.2%	4	4.8%	1,347	4.9%		
	24	2	1.8%	7	3.4%	5	2.7%	2	2.4%	1,121	4.1%		
	25-29	22	19.8%	34	16.7%	47	25.0%	26	31.3%	3,398	12.5%		
	30-39	54	48.6%	69	34.0%	70	37.2%	28	33.7%	2,896	10.6%	97,447	18.7%
	40-49	15	13.5%	44	21.7%	28	14.9%	15	18.1%	1,770	6.5%		
	50-64	9	8.1%	24	11.8%	12	6.4%	3	3.6%	1,195	4.4%	69,852	13.4%
	65+	0	0.0%	0	0.0%	0	0.0%	0	0.0%	251	0.9%		
Class Load	Full-time	0	0.0%	0	0.0%	0	0.0%	31	37.3%	8,560	31.4%		
	Part-time	2	1.8%	0	0.0%	1	0.5%	28	33.7%	18,675	68.5%		
	Not enrolled or N/A	109	98.2%	203	100.0%	187	99.5%	24	28.9%	36	0.1%		
Time of Classes*	Daytime	54	48.6%	116	57.1%	123	65.4%	25	30.1%	19,337	70.9%		
	Evening	57	51.4%	87	42.9%	65	34.6%	0	0.0%	5,084	18.6%		
	Unknown	0	0.0%	0	0.0%	0	0.0%	58	69.9%	2,850	10.5%		
Academic Level	College degree	45	40.5%	51	25.1%	74	39.4%	32	38.6%	3,680	13.5%		
	HS Graduate	66	59.5%	130	64.0%	114	60.6%	51	61.4%	21,533	79.0%		
	Not a HS Grad	0	0.0%	0	0.0%	0	0.0%	0	0.0%	582	2.1%		
	K-12 Special Admit	0	0.0%	0	0.0%	0	0.0%	0	0.0%	916	3.4%		
	Unknown	0	0.0%	22	10.8%	0	0.0%	0	0.0%	560	2.1%		

Educational Goal	Intend to Transfer	12	10.8%	20	9.9%	21	11.2%	7	8.4%	8,408	30.8%		
	Degree/Certif. Only	12	10.8%	18	8.9%	18	9.6%	10	12.0%	1,115	4.1%		
	Retrain/recertify	41	36.9%	94	46.3%	94	50.0%	39	47.0%	1,719	6.3%		
	Basic Skills/GED	2	1.8%	1	0.5%	1	0.5%	0	0.0%	1,262	4.6%		
	Enrichment	16	14.4%	17	8.4%	17	9.0%	12	14.5%	985	3.6%		
	Undecided	28	25.2%	52	25.6%	52	27.7%	15	18.1%	6,136	22.5%		
	Unknown	0	0.0%	1	0.5%	1	0.5%	0	0.0%	7,646	28.0%		

Additional characteristics available upon request.

Appendix C

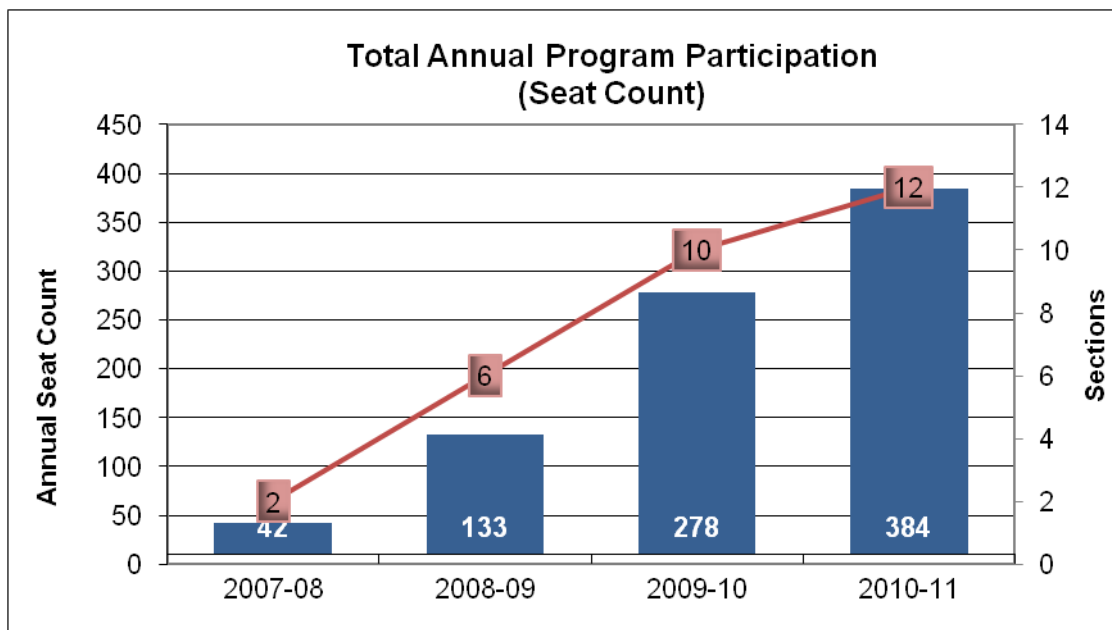
ENROLLMENT RATES

Total Annual Program Participation (4-year Trend)

Years: 2007-08 to 2010-11

Compton-Fire

	2007-08	2008-09	2009-10	2010-11	4 Yr Average
Annual Seat Count	42	133	278	384	209

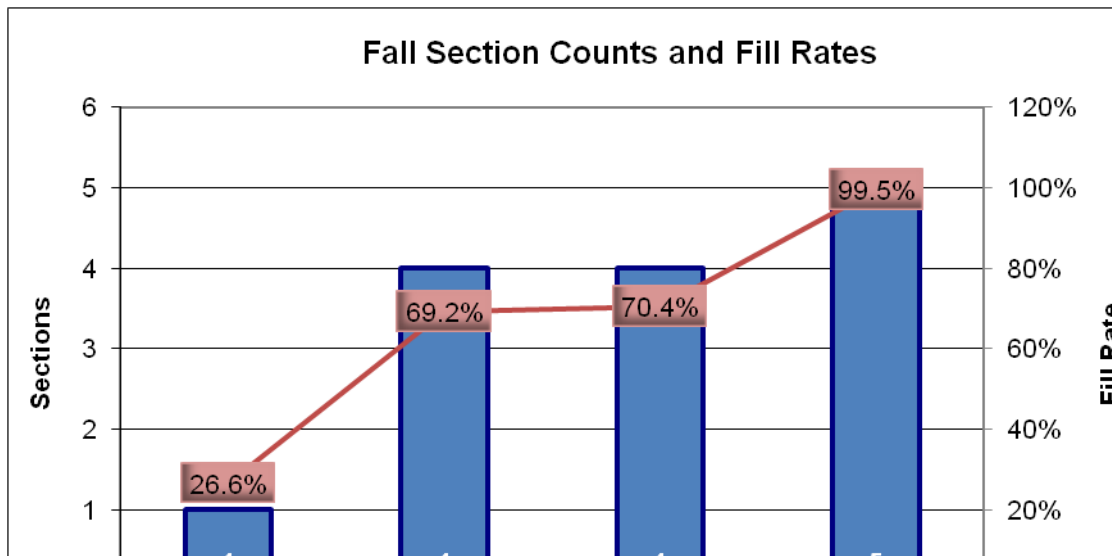


Course, Section, Seat Counts
Years: 2007-08 to 2010-11

	2007-08	2008-09	2009-10	2010-11
Sections	2	6	10	12
Seats	42	133	278	384
Unduplicated Students	42	80	158	237
Seats/Unduplicated Students	1.0	1.7	1.8	1.6

Course Fill Rates

	Fall 2007	Fall 2008	Fall 2009	Fall 2010
	26.6%	69.2%	70.4%	99.5%



Appendix D

1

El Camino College
College Curriculum Committee

2011 - 2012
COURSE REVIEW

INDUSTRY AND TECHNOLOGY

COURSE	CCC REVIEW											
	01-02	02-03	03-04	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13
231. Fire and Emergency Technology 131								X				
232. Fire and Emergency Technology 132								X				
233. Fire and Emergency Technology 133								X				
234. Fire and Emergency Technology 134				X						X		
235. Fire and Emergency Technology 135								X				
236. Fire and Emergency Technology 136								X				
237. Fire and Emergency Technology 137								X				
238. Fire and Emergency Technology 138								X				
239. Fire and Emergency Technology 139								X				
240. Fire and Emergency Technology 140						X	X				X	
241. Fire and Emergency Technology 141						X	X					
242. Fire and Emergency Technology 142abcd									X			
243. Fire and Emergency Technology 150									X			
244. Fire and Emergency Technology 152	X					X					INACTIVATE	
245. Machine Tool Technology 2			X						X			

Appendix E

SLO and Assessment Timeline: Four-Year Cycle

Program Name	Fire and Emergency Technology
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SLO Assessment Timeline: Create Your 4-Year Assessment Plan

Directions: Starting in academic year 2011-2012, SLOs will be assessed over a four-year cycle at ECC. Because program review will start occurring in calendar years (i.e. Spring to Fall semester), the grid below is organized by calendar year rather than academic year. Plan out your program’s assessments so that all SLOs (both course- and program-level) are assessed at least once every four years.

Year	Semester	Course-Level SLOs Assessed	Program-Level SLOs Assessed
Year 1 of 4-Year SLO Cycle <i>(3 years before Program Review)</i>	Spring Year 1	FETC 1, FETC 2	FALL 2011
	Fall Year 1	FETC 4, FETC 10 NOT OFFERED	N/A
Year 2 of 4-Year SLO Cycle <i>(2 years before Program Review)</i>	Spring Year 2	FETC 9 NOT OFFERED	N/A
	Fall Year 2	FETC 5, FETC 6 NOT OFFERED	N/A

Year 3 of 4-Year SLO Cycle <i>(1 year before Program Review)</i>	Spring Year 3	FETC 15 NOT OFFERED	N/A
	Fall Year 3	FETC 11, FETC 19 NOT OFFERED	N/A
Year 4 of 4-Year SLO Cycle <i>(Year of Program Review)</i>	Spring Year 4	FTEC 140, FTEC 141	FALL 2011
	Fall Year 4		

****Note: Indicate which SLOs will be assessed in the timeline by indicating the number or title of the SLO.***