

IMPERIAL VALLEY COLLEGE
PROGRAM REVIEW COMPLIANCE FORM AND REQUEST FOR RESOURCES

DEPARTMENT NAH - Fine Tech.

ACADEMIC YR. 1273

Comprehensive Program Review

Annual Assessment

Request for Resources (check all that apply)

Complete your Program Review data as well as your SLO/SAO assessment findings in order to update to your Comprehensive Program Review. All changes to area needs and subsequent requests for additional resources must be reported at this time.

If your program is scheduled for a Comprehensive Program Review all forms are to be completed and submitted to the appropriate Dean/VP. If only an annual Program Review Assessment only and have no changes to area needs, sign below and submit this form to appropriate Dean/VP. If changes are made as a result of your annual assessment of program review data, please complete the appropriate Request for Resources form and submit to appropriate Dean/VP.

[Signature]
Program Chair/Director

2/28/13
Date

[Signature]
Signature of Area Dean

[Signature]
Area Vice President

2/28/13
Date

- Attach the following documents to this Program Review Compliance form if you are requesting additional resources:
- Comprehensive Program Review
 - Request for Resources Form
 - SLO/SAO Assessments
 - Request for Resources Forms

**Academic Program Evaluation – Fire Technology
Division – Health and Sciences
Department – Nursing and Allied Health – Fire Sciences**

FIRE TECHNOLOGY COURSES

TERM	Enrollment	Fill Rate	of Section	Mass Cap	Avg. Class Cap	Avg. Class Size	FTES	FTEF	Productivity (FTES/FTEF)	Completion Rate	Success Rate
Fall 2009	238	70%	11	340	30.91	21.64	24.03	2.15	11.18	83%	61%
Spring 2010	197	102.60%	10	192	19.2	19.7	20.61	2.07	9.96	82%	55%
Fall 2010	275	92.28%	12	298	24.83	22.92	26.83	2.29	11.72	82%	65%
Spring 2011	250	104.17%	11	240	21.82	22.73	26.41	2.2	12	92%	66%
Fall 2011	243	60.45%	11	402	36.55	22.09	24.59	2.12	11.6	77%	50%
Spring 2012	175	44.99%	10	389	38.9	17.5	17.55	2.03	8.65	86%	56%
% Change Fall Semesters 09 - 11	2.10%	-13.64%	0.00%	18.24%	18.25%	2.08%	2.33%	-1.40%	3.76%	-7.23%	-18.03%
% Change Spring Semesters 10 - 12	-11.17%	-56.15%	0.00%	102.60%	102.60%	-11.17%	-14.85%	-1.93%	-13.15%	4.88%	1.82%

Comment: Enrolment and Fill Rates were highest between Fall 10 and Spring 11. The following academic year saw a drop in both with Fill Rate the most notable decrease. The overall Completion Rates has averaged 82-83% with the Success Rate averaging above 55% with further analysis to follow the additional data below.

PROGRAM COMPLETION

Number of certificates completed Between Fall 2009 and Spring 2012	Number of Associate Degrees Completed Between Fall 2009 and Spring 2012
0	8

Comment: The number of degrees is extremely low. However, the fire industry grants advancement according to OSFM certifications, which all fire courses provide to the student that successfully completes all course requirements & testing.

FIRE TECHNOLOGY COURSES - A.S. DEGREE & CERTIFICATE

A. S. DEGREE - Required Courses: FIRE 100, 101, 102, 103, 104, 105

Select 15 units from: AJ 108, CIS 101, FIRE/EMT 105, FIRE 109, 220,221, 222, 223, 224, 225, 226, 229, 230, 231, 232, 233, 234, 240, 241, 242, 245

CERTIFICATE Required Courses: FIRE 100, 101, 102, 103, 104, 105

Select 15 units from: AJ 108, CIS 101, FIRE/EMT 105, FIRE 109, 220,221, 222, 223, 224, 225, 226, 229, 230, 231, 232, 233, 234, 240, 241, 242, 245

Course	Course Cp	ENROLLMENT - # OF SECTIONS						FTES						Fill Rate					Wait Lists			
		F09	S 10	F 10	S 11	F 11	S 12	F09	S 10	F 10	S 11	F 11	S 12	F09	S 10	F 10	S 11	F 11	S 12	S 12	F 12	S 13
FIRE 100	25	50 - 1	84 - 1	27 - 1	28 - 1	38 - 1	25 - 1	3.50	3.5	2.78	2.88	3.91	2.57	100%	136.00%	90%	112.00%	76%	50%			
FIRE 101	25		84 - 1	93 - 1	34 - 1	29 - 1	23 - 1	3.5	3.5	3.39	3.50	2.98	2.37		136.00%	110%	136.00%	58%	46%			
FIRE 102	30		26 - 1	26 - 1	25 - 1	24 - 1	19 - 1	2.67	2.67	2.67	2.57	2.47	1.85		86.67%	86.67%	83.33%	48%	38%			
FIRE 103	30	36 - 1	19 - 1	19 - 1	26 - 1	16 - 1	11 - 1	3.70	1.54	1.95	2.67	1.65	1.13	72%	50.00%	63.33%	86.67%	32%	22%			
FIRE 104	30	31 - 2	16 - 1	26 - 1	16 - 1	26 - 1	03 - 1	3.19	1.65	2.67	1.65	2.67	1.34	44.29%	53.33%	86.67%	53.33%	52%	26%			
FIRE/EMT 105	50	74 - 1	78 - 1	78 - 1	75 - 1	75 - 1	78 - 1	4.24	6.84	7.82	8.14	2.61	4.23	148%	156.00%	156%	150.00%	150%	156.00%			8
FIRE 107		0 - 1	0 - 1	0 - 1																		
FIRE 108	30	24 - 1	11 - 1	5 - 1	24 - 1	25 - 1	9 - 1	2.47	1.13	0.51	2.47	2.57	0.93	48%	36.67%	16.67%	80.00%	50%	18%			
FIRE 109	20	27 - 1			23 - 1	24 - 1		1.85			1.58		1.65	135%			92%		96%			
FIRE 117	30			29 - 1		16 - 1				0.99		0.55				96.67%		80%				
FIRE 121	25		20 - 1		20 - 1	23 - 1			0.69		0.69		0.79		100%		80%		95.83%			4
FIRE 122	20	20 - 1		28 - 1		22 - 1		0.34		0.48		0.38		100%		140%		100%				
FIRE 130	20	18 - 1		27 - 1		21 - 1		4.69		6.67		5.18		95%		135%		105%				
FIRE 131	25		16 - 1		25 - 1	16 - 1			3.79		5.91		3.79		80%		100%		80%			
FIRE 220						16 - 1						1.37						80%				
FIRE 221	20	11 - 1				10 - 1		0.94				0.86		55%				50%				
FIRE 222	20																					
FIRE 223																						
FIRE 224	20				14 - 1	12 - 1					1.20		1.03				70%		60%			
FIRE 225	16			16 - 1						1.37						100%						
FIRE 226	16			17 - 1						1.46						106.25%						
FIRE 227			12 - 1							1.03					75.00%							
FIRE 228			13 - 1							1.11					81.25%							
FIRE 229	25	11 - 1			15 - 1			0.94			1.29			55%			60%					
FIRE 230	20	9 - 1						0.77						45%								
FIRE 231																						
FIRE 232																						
FIRE 233																						
FIRE 234	16			22 - 1						51.00						137.50%						
FIRE 240																						
FIRE 241																						
FIRE 242																						
FIRE 245																						
AJ 108																						
CIS 101	32	298 - 9	244 - 8	279 - 10	243 - 9	282 - 10	236 - 8	30.65	25.10	28.70	24.98	29.00	22.10	98.68%	141.86%	88.01%	140.46%	85.20%	82.13%			9

Comment: The list of courses is extensive as these courses lead to Fire Officer status and IVC is the only local community college. Some of the courses listed above are specific to the Fire Academy or Fire Fighter 1 program, not Fire Technology.

FIRE TECHNOLOGY COURSES - COMPLETION AND SUCCESS RATE

Course	Completion Rate						Success Rate					
	F09	S 10	F 10	S 11	F 11	S 12	F09	S 10	F 10	S 11	F 11	S 12
FIRE 100	64%	71%	48%	55%	53%	68%	26%	24%	37%	39%	18%	24%
FIRE 101		68%	42%	79%	66%	70%	35%	47%	33%	22%	24%	22%
FIRE 102		73%	73%	100%	83%	89%		46%	31%	68%	25%	21%
FIRE 103	83%	87%	95%	88%	63%	91%	44%	27%	32%	58%	25%	18%
FIRE 104	77%	81%	77%	88%	81%	77%	42%	38%	35%	44%	42%	23%
FIRE/EMT 105	77%	76%	72%	76%	76%	77%	49%	55%	56%	52%	55%	50%
FIRE 107												
FIRE 108	83%	73%	100%	96%	72%	89%	54%	45%	40%	58%	40%	67%
FIRE 109	85%			100%		96%	85%			100%		92%
FIRE 117			100%		100%				100%		100%	
FIRE 121		100%		95%		96%		100%		55%		96%
FIRE 122	100%		100%		100%		100%		100%		100%	
FIRE 130	95%		96%		100%		95%		93%		100%	
FIRE 131		100%		100%		100%		100%		88%		100%
FIRE 220					81%						81%	
FIRE 221					70%						70%	
FIRE 222												
FIRE 223												
FIRE 224				100%		100%				100%		100%
FIRE 225					94%					94%		
FIRE 226			94%						94%			
FIRE 227		100%						100%				
FIRE 228		100%						100%				
FIRE 229				100%						100%		
FIRE 230	100%						100%					
FIRE 231												
FIRE 232												
FIRE 233												
FIRE 234			100%						100%			
FIRE 240												
FIRE 241												
FIRE 242												
FIRE 245												
FIRE 245												
AJ 108												
CIS 101	81%	78%	84%	84%	85%	91%	57%	59%	53%	53%	59%	56%

Comment: During the study period courses 100, 101, 102, 103, 104, 108 were offered on-line; a new format for the county fire personnel and for those enrolled from outside the county. The faculty held to strict success standards with resulting numbers skewing the overall rates.

FIRE TECHNOLOGY COURSES - SUMMARY ANALYSIS

Recent Enrollment Demand: High Medium Low

Comment: Compared to other majors enrollment demand is low, however, the local fire industry the demand is considered medium.

Projection for Future Demand: Growing Stable Declining

Comment: Despite the low enrollment when compared to other majors, the local fire industry will continue to seek advancement to a fire officer position locally and throughout California and the Fire Technology courses are a requirement by the Office of the State Fire Marshall. Labor Market Information is provided for a 'generic firefighter' and indicates it is in a growth mode with

Opportunity Analysis: (Successes, new curriculum development, alternative delivery mechanisms, interdisciplinary strategies, etc.)

- **Success Rates. Opportunity to Improve.** The overall rate is low due primarily to the courses (100-104 & 108). During this study period those courses were offered online, which was a new format to many in and out-of-county fire community. Other Fire Tech courses had a much higher success rate. Analysis of the online vs live success rates will be completed at the end of 12-13 year.
- **Degrees: Opportunity to Improve.** Degrees achieved is LOW. One factor is the Office of State Fire Marshall (OSFM) requirement for fire 'certificates' which are received after successfully completion of the course and testing. The OSFM does not have the same requirement for the college 'certificate'. However, the OSFM is currently deliberating a requirement for a AS degree for advancement to fire officer. In 2013 Fire Academy faculty began distributing a checklist for each student in the entry level program to inform them of the importance of the college certificate and degree.
- **Completion Rates:** The overall rate has averaged more than 80%, yet there is a significant non-quantifiable factors contributing to the rate - motivation. The OSFM requires courses 100-104 & 108 to be completed for any firefighter classification above entry level. Courses above 200 are requirements for a fire officer position such as captain or chief.
- **Employment** is not secured solely by these classes, however advancement is. The OSFM fire fighter II certificate requires the listed 'core' courses and as noted above a degree will be required to advance to a fire officer at any level. Full-time jobs for fire fighters and officers are above minimum wage.
- **Delivery Mechanisms:** The pilot for online courses was hoped to provide the working fire fighter a chance to complete courses without impacting the fire station or personal schedules to negatively. However, this option will be re-evaluated carefully based on the data provided above. Although the methodology is new to the local fire fighter students, many failed because they did not drop themselves in a timely basis which has also impacted the retention and success rates. Still, there is a consensus among the local fire departments and the advisory committee that there is an increasing need for online courses.
- **Other Opportunities:** The Fire Technology program has no full-time faculty or a dedicated part-time coordinator.

FIRE TECHNOLOGY COURSES - SUMMARY ANALYSIS CONTINUED

Summary of Program "Health" Evaluation: (Including consideration of size, score, productivity and quality of outcomes)

- **Size/Scope:** The Fire Technology program serves and is supported by the fire industry and fire chiefs. While there is support, need, and a desire for the program the enrollments will never reach the levels of other high demand majors.
- **Quality:** The Fire Academy in spring 2013 had a successful on-site accreditation visit. During that visit the three surveyors also reviewed some of the Fire Technology program and interviewed several local fire chief who spoke positively of the IVC program.
- **Cost per FTES** - During the study period courses (100-104 & 108) were provided through a unique contractual arrangement. This too will be part of the analysis done at the end of this academic year.
- **Graduation Requirement** - NO
- **Gatekeeper** - NO
- **Responds to local job market** - YES. IVC is the only regional college offering fire fighter I, II and/or fire officer courses. IVC provides a local opportunity for job advancement.
- **Responds to other community need** - YES. Public safety education for the fire community.

Student Learning Outcomes and Program Learning Outcomes

Student Learning Outcomes Assessment –completion

Subject	#	Course Title	Dept	Div	Unit	F 10 - Crs SLOs	S 11 - Crs SLOs	F 11 Crs SLOs	S 12 Crs SLOs	F 12 Crs SLOs	S 13 - Crs SLOs
FIRE	100	Fire Protection Organization	NAH	H&S	3	0	0	0	0	0	TBA
FIRE	101	Fire Prevention Technology	NAH	H&S	3	0	0	0	0	0	
FIRE	102	Fire Protection Equip and Sys	NAH	H&S	3	0	0	1,2	0	0	
FIRE	103	Bldg Construct for Fire Protec	NAH	H&S	3	0	0	0	0	0	TBA
FIRE	104	Fire Behav and Combustion	NAH	H&S	3	0	0	0	0	0	TBA
FIRE	108	Fire & Emergency Services (need 3 slos)	NAH	H&S	3	0	0	0	0		TBA
FIRE	220	Fire Apparatus 1A - Driver (need 2-3)	NAH	H&S	2.5			1			
FIRE	221	Fire Apparatus 1B - Pump (need 2-3)	NAH	H&S	2.5			1			
FIRE	222	Fire Investigation 1A	NAH	H&S	2.5					0	
FIRE	223	Fire Investigation 1B	NAH	H&S	2.5						TBA
FIRE	224	Fire Management 1	NAH	H&S	2.5		1		0		TBA
FIRE	225	Fire Prevention 1A	NAH	H&S	2.5	1				0	
FIRE	226	Fire Prevention 1B	NAH	H&S	2.5	0				0	
FIRE	229	Fire Command 1A	NAH	H&S	2.5		1				TBA
FIRE	230	Fire Command 1B	NAH	H&S	2.5						TBA
FIRE	231	ICS 300	NAH	H&S	1.5						
FIRE	232	Public Education 1	NAH	H&S	2.5						
FIRE	233	Fire Command 1C	NAH	H&S	2.5						
FIRE	234	Fire Prevention 1C	NAH	H&S	2.5	0					
FIRE	240	Training Instructor 1A: Cog.	NAH	H&S	1.5						
FIRE	241	Training Instructor 1B: Psychomo	NAH	H&S	1.5						
FIRE	242	Training Instructor 1C: Instruct.	NAH	H&S	1.5						
FIRE	245	Fire Instructor 2A	NAH	H&S	2.5						

Comment: The lack of any full-time faculty and any one dedicated coordinator has hindered the progress on SLOs. In 2012-2013 it is a focus and the completion of the assessments will increase.

Program Learning Outcomes Assessment

Fire Technology has assessed their 3 PLOs one time and will be doing so again in Spring 2013.

- **Outcome #1:** Students will be able to apply emergency incident management strategies in relationship to incident command systems in public and private fire protection careers evidenced by OSFM mandated testing. 99% success

- Outcome # 2: Students will demonstrate management concepts and practices including decision making, leader styles, personnel evaluations & counseling techniques as evidenced by OSFM mandated testing. 79% success

Success Rate of Student Learning Outcomes

Overall success rate of the SLOs submitted has been good. The team will focus on increasing the number of SLOs assessed and the number of courses to complete a cycle assessment.

Success Rate of Program Learning Outcomes

Success rate has been good. The PLOs will be reevaluated when assessed again in Spring 2013

Future Goals of the Program

Program Past Goals:

In the last comprehensive program review Fire Tech. set several objectives which were in alignment with Educational Master Plan (EMP) Goals.

1. Explore alternatives for increasing enrollments and fill rates *(EMP: student success and develop resources)*
 - o Enrollment and fill rates went up and more recently dropped
2. Expand distant education and technology opportunities *(EMP: excellence in education)*
 - o Online courses were offered for past two years with mixed results. Comparisons to current live courses pending
3. Improve the documentation of SLO cycle assessments *(EMP: student success and develop resources)*
 - o SLOs have been slow to progress
4. Prepare for survey/accreditation *(EMP: excellence in education)*
 - o On-site visit completed in January 2013
5. Improve student success in the core fire courses (entry-level) *(EMP: student success and develop resources)*
 - o See remainder of report
6. Explore opportunities to expand Fire Officer course offerings *(EMP: excellence in education)*
 - o Continue to offer courses based on demand/requests per community and the fill rates.

2012-2013 Educational Master Plan (EMP) Goals

1. **Institutional Mission and Effectiveness:** The College will maintain programs and services that focus on the mission of the college supported by data-driven assessments to measure student learning and student success
2. **Student Learning Programs and Services:** The College will maintain instructional programs and services which support student success and the attainment of student educational goals.
3. **Resources:** The College will develop and manage human, technological, physical, and financial resources to effectively support the college mission and the campus learning environment.
4. **Leadership and Governance:** The Board of Trustees and the Superintendent/President will establish policies that assure the quality, integrity, and effectiveness of student learning programs and services, and the financial stability of the institution.

Program Future Goals

Program Future Goals

1. Increase enrollment and diversity in the Fire Technology program (EMP Goal 2: Student Learning Programs and Services)
2. Increase response on post-completion employment feedback (EMP Goal 2: Student Learning Programs and Services)
3. Increase community awareness of and faculty to participate in the final plans for the new CTE building and finalize the relocation plan prior to September 1, 2013. (EMP Goal 3: Resources)
4. Seek grant funding for furthering the curriculum, teaching methodologies, and/or technology at the industry standard identified as best practices or mandates within the state Fire Technology programs. (EMP Goal 3: Resources)
5. Increase Fire Technology faculty participation in campus shared governance committees and to continue to participate in the community advisory committee for the Fire Sciences programs. (Leadership and Governance)

Resource Requests

Any Identified Needs: Staffing, Technology, Budget/Planning, Facilities, Professional Development, Marketing

- Staffing: At least 1 full-time faculty member or a dedicated coordinator. Cost estimated at \$60,000
- Budget/Planning: District funded ongoing instructional materials for the required structure and wildland fire components as a requirement for ongoing accreditation by OSFM. This will be approximately \$30-35,000 annually into the future. Previously most of the instructional supplies were funded by the CTE/Perkins or Lottery.
- Professional development: High-level Fire Officer courses will require the faculty to achieve the OSFM level of knowledge required to teach.