IMPERIAL VALLEY COLLEGE
PROGRAM REVIEW COMPLIANCE FORM AND REQUEST FOR RESOURCES

DEPARTMENT SME - Pre Engineering ACADEMIC YR. 12-13

rehensive Program Review Annual Assessment Request for Resources (check all tha

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

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

3/11/13
rogram Chair/Director Date Signature of Area Dean D

3-1-13
rea Vice President Date

he following documents to this Program Review Compliance form if you are requesting additional resources:
sive Program Review
is Form
Assessments
Resources Forms

Academic Program Evaluation – Pre-Engineering
Division – H & S
Department - SME

Engineering Courses

TERM	Enrollment	Fill Rate	# of Sections	Mass Cap	Avg. Class Cap	Avg. Class Size	FTES	FTEF	Productivity (FTES/FTEF)	Completion Rate	Success Rate
Spring 2010	13	18.57%	2	70	35	6.5	1.34	0.4	3.35	100%	77%
Fall 2010	12	34.29%	1	35	35	12	1.23	0.2	6.15	83%	83%
Fall 2011	12	34.29%	1	35	35	12	1.23	0.2	6.15	100%	83%
Spring 2012	11	31.43%	1	35	35	11	1.13	0.2	5.65	100%	91%
% Change Fall Semesters 09 - 11	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	20.48%	0.00%
% Change Spring Semesters 10 - 12	-15.38%	69.25%	-50.00%	-50.00%	0.00%	69.23%	-15.67%	-50.00%	68.66%	0.00%	18.18%

PROGRAM COMPLETION

Number of certificates completed Between Fall 2009 and Spring 2012	Number of Associate Degrees Completed Between Fall 2009 and Spring 2012
N/A	2

PRE-ENGINEERING ASSOCIATE DEGREE

REQUIRED COURSES: CHEM 200, ENGR 210, MATH 210, PHYS 200
Select 3 units from: MATH 220, 230
Select 3 units from: ENGR 212, 240
Select 5 units from: CHEM 202, 204, 206, CIS 210, 220, ENGR 212, 240, MATH 119, 220, 230, PHYS 202, 204

PRE-ENGINEERING –ENROLLMENT, FILL RATE & WAIT LISTS

		Enrollment - # Sections						Fill Rate						Wait List 1/8/2013
COURSES	Course Cap	F 09	S 10	F 10	S 11	F 11	S 12	F 09	S 10	F 10	S 11	F 11	S 12	S 13
ENGR 210	35		9 - 1	12 - 1		12 - 1			25.71%	34.29%		34.00%		
ENGR 212	35						11 - 1						31.45%	
ENGR 240	35		4 - 1						11.43%					
CHEM 200	25	33 - 1	28 - 1	27 - 1	23 - 1	25 - 1	19 - 1	137.50%	116.67%	112.50%	92%	100%	76%	15
CHEM 202	25	14 - 1	27 - 1	16 - 1	19 - 1	15 - 1	12 - 1	58.33%	112.50%	66.67%	76%	60%	48%	
CHEM 204	25		18 - 1						75%					
CHEM 206														
CIS 210	28	30 - 1	24 - 1	26 - 1	28 - 1	28 - 1	19 -1	107.14%	85.71%	9286.00%	89.29%	10000.00%	71.41%	
CIS 220														
MATH 119	30	182 - 6	200 - 6	304 - 9	212 - 6	259 - 8	289 - 8	101.11%	133.33%	112.59%	141.33%	107.92%	120.42%	114
MATH 220	30		18 - 1		25 - 1		24 - 1		60%		83.33%		80%	
MATH 230	35	28 - 1		26 - 1		31 - 1		93.33%		86.67%		88.57%		
PHYS 200	25	24 - 1	24 - 1	20 - 1	24 - 1	20 - 1	21 - 1	100%	100%	83.33%	100%	80%	84%	1
PHYS 202	25	27 - 1		28 - 1		19 - 1		112.50%		116.67%		76%		
PHYS 204	25		30 - 1		29 - 1		23 - 1		125%		120.83%		92%	

PRE-ENGINEERING –PRODUCTIVITY

	FTES						FTEF						Productivity					
COURSE	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
ENGR 210		0.93	1.23		1.23			0.20	0.20		0.20			4.65	6.15		6.15	
ENGR 212						1.13						0.20						5.65
ENGR 240		0.41						0.20						2.05				
CHEM 200	10.18	8.64	8.33	7.10	7.71	5.86	0.33	0.33	0.33	0.33	0.33	0.33	30.85	26.18	25.24	21.52	23.36	17.76
CHEM 202	4.32	8.33	4.94	5.86	4.63	3.70	0.33	0.33	0.33	0.33	0.33	0.33	13.09	25.24	14.97	17.76	14.03	11.21
CHEM 204		5.55						0.33						16.82				
CHEM 206																		
CIS 210	3.09	2.47	2.67	2.57	2.88	1.95	0.2	0.2	0.2	0.2	0.2	0.2	15.45	12.35	13.35	12.85	14.40	9.75
CIS 220																		
MATH 119	24.97	27.43	41.69	29.08	35.51	39.63	1.62	1.62	2.43	1.62	2.16	2.16	15.41	16.93	17.16	17.95	16.44	18.35
MATH 220		1.85		2.57		2.47		0.20		0.20		0.20		9.25		12.85		12.35
MATH 230	2.88		2.67		3.19		0.20		0.20		0.20		14.40		13.35		15.95	
PHYS 200	5.76	5.76	4.8	5.76	4.8	5.04	0.33	0.33	0.33	0.33	0.33	0.33	17.45	17.45	14.55	17.45	14.55	15.27
PHYS 202	6.48		6.72		4.56		0.33		0.33		0.33		19.64		20.36		13.82	
PHYS 204		7.2		6.96		5.52		0.33		0.33		0.33		21.82		21.09		16.73

PRE-ENGINEERING –COMPLETION & SUCCESS RATES

	Completion Rate						Success Rate					
COURSE	F09	S 10	F 10	S 11	F 11	S 12	F09	S 10	F 10	S 11	F 11	S 12
ENGR 210		100%	83%		100%			67%	83%		83%	
ENGR 212						100%						91%
ENGR 240		100%						100%				
CHEM 200	94%	61%	85%	83%	76%	79%	82%	61%	67%	61%	48%	53%
CHEM 202	93%	63%	75%	100%	67%	83%	79%	44%	69%	74%	47%	83%
CHEM 204		78%						33%				
CHEM 206												
CIS 210	67%	67%	77%	76%	89%	79%	30%	42%	46%	48%	71%	37%
CIS 220												
MATH 119	76%	84%	79%	87%	73%	86%	58%	68%	58%	70%	54%	64%
MATH 220		89%		68%		100%		67%		68%		96%
MATH 230	100%		96%		71%		93%		77%		61%	
PHYS 200	71%	83%	80%	88%	90%	81%	58%	63%	80%	75%	80%	76%
PHYS 202	78%		89%		95%		78%		86%		84%	
PHYS 204		93%		97%		100%		63%		93%		87%

Recent Enrollment Demand:	☐ High	☐ Medium	☒ Low
Projection for Future Demand :	☐ Growing	☒ Stable	☐ Declining

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

This program needs a champion.

The critical decision facing the Engineering program is one of faculty and equipment. We cannot hope to sustain an engineering program at Imperial Valley College without full-time engineer involvement and a dedicated engineering lab.

Given the current state of the budget, the only other option is to terminate the program.

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

We are currently (AY 2012/2013) offering no engineering courses.

We have no full time engineering faculty.

We are relying on part-time faculty and have experienced high turnover and difficulty in recruiting new staff.

Student Learning Outcomes and Program Learning Outcomes

PLOs have been identified:

1. Have a working knowledge of the theories and principles of physics in the areas of Newtonian mechanics, gravitation, electricity and magnetism, wave motion and physical optics.
2. Be acquainted with standard methods of mathematical analysis including trigonometry and analytic geometry, differential and integral calculus, matrices and linear algebra, and the solutions to differential equations.
3. Can use the computer to store and process technical data, to access information remotely over the internet, and as a computational tool related to the engineering process.

No courses have been offered recently because of a lack of FT faculty and the difficulty of recruiting PT faculty, therefore no SLOs have been done in the same time frame.

Future Goals of Program

This program is an orphan. It needs a commitment from administration, and a champion to build a program

Resource requests from annual program review

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

1. Staffing: 1 FT faculty split 50% engineering and 50% math to be the champion
2. Marketing: We are not sure if more students would come if they knew more about the program and where it might lead
3. Marketing: If the program is to continue the recruitment of a qualified instructor is critical