

IMPERIAL VALLEY COLLEGE  
PROGRAM REVIEW COMPLIANCE FORM AND REQUEST FOR RESOURCES

DEPARTMENT SME - Life Sci

ACADEMIC YR. 1213

Comprehensive Program Review

Annual Assessment

Request for Resources (check all that apply)

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

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

[Signature] 3/1/13  
Program Chair/Director Date

[Signature]  
Signature of Area Dean

[Signature] 3-1-13  
Area Vice President Date

Attach the following documents to this Program Review Compliance form if you are requesting additional resources:  
Comprehensive Program Review  
Assessment Form  
Request for Resources Form

**Academic Program Evaluation - LIFE SCIENCE**  
**Division - H & S**  
**Department - Science**

**Biology Courses**

TERM	Enrollment	Fill Rate	# of Sections	Mass Cap	Avg. Class Cap	Avg. Class Size	FTES	FTEF	Productivity (FTES/FTEF)	Completion Rate	Success Rate
Fall 2009	620	114.81%	22	540	24.55	28.18	138.05	9.71	14.22	81%	66%
Spring 2010	655	99.39%	26	659	25.35	25.19	137.44	10.91	12.6	81%	70%
Fall 2010	559	108.33%	21	516	24.57	26.62	123.51	9.18	13.45	81%	70%
Spring 2011	620	102.48%	23	605	26.3	26.96	132.64	9.71	13.66	83%	71%
Fall 2011	573	107.10%	21	535	25.48	27.29	126.97	9.18	13.83	82%	73%
Spring 2012	598	99.67%	23	600	26.09	26	135.73	10.24	13.25	87%	72%
% Change Fall Semesters 09 - 11	-7.58%	-6.72%	-4.55%	-0.93%	3.79%	-3.16%	-8.03%	-5.46%	-2.74%	1.23%	10.61%
% Change Spring Semesters 10 - 12	-8.70%	0.28%	-11.54%	-8.95%	2.92%	-3.22%	-1.24%	-6.14%	5.16%	7.41%	2.86%

**Life Science Courses - Associate Degree**

Select a minimum of 18 units from: ANTH 100, BIOL 120, 122, 140, 150, 180, 182, 200, 202, 204, 206, 220

Select a minimum of 6 units from: AG/ENVS 110, CHEM 200, 202, 204, 206, GEOL 100, 110, MATH 119

**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	5

**Life Science Courses – ENROLLMENT, FILL RATE & WAIT LISTS**

COURSES	Course Cap	Enrollment - # Sections						Fill Rate						Wait List 1/8/2013
		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
ANTH 100	40	151 - 3	150 - 3	150 - 3	158 - 3	140 - 3	132 - 3	125.8%	125.0%	125.0%	131.7%	116.7%	110.0%	2
BIOL 120	25				26 - 1						104%		84%	1
BIOL 122	25		15 - 1				21 - 1		62.50%				84.00%	
BIOL 140	35		34 - 1		34 - 1		25 - 1		97.14%		97.14%		71.43%	
BIOL 150	35		28 - 1		27 - 1		18 - 1		80%		77.14%		51.43%	2
BIOL 180	25	27 - 1		26 - 1		25 - 1		112.5%		108.33%		100%		
BIOL 182	25		20 - 1		25 - 1		25 - 1		83.3%		100%		100%	12
BIOL 200	25	56 - 2	46 - 2	46 - 2	49 - 2	50 - 2	48 - 2	116.67%	95.83%	95.83%	98%	100%	96%	14
BIOL 202	25	26 - 1	25 - 1	51 - 2	23 - 1	26 - 1	48 - 2	104.17%	104.17%	108.33%	92%	104%	96%	15
BIOL 204	25	50 - 2	49 - 2	48 - 2	49 - 2	50 - 2	48 - 2	91.67%	102.08%	100%	98%	100%	96%	36
BIOL 206	25	23 - 1	23 - 1	27 - 1	23 - 1	23 - 1	25 - 1	112.50%	95.83%	112.50%	92%	92%	100%	4
BIOL 220	25	28 - 1	50 - 2	53 - 2	58 - 2	54 - 2	74 - 3	120.83%	104.17%	110.42%	116%	108%	98.67%	37
AG/ENVS 110	30	258 - 8	288 - 9	263 - 9	229 - 8	256 - 8	193 - 7	107.5%	107.08%	97.4%	95.42%	106.7%	97.2%	5
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														
GEOL 100	35	83 - 2	56 - 2	64 - 2	54 - 2	46 - 2	45 - 2	115.3%	116.67%	133.33%	112.50%	92%	90%	4
GEOL 110	35	155 - 4	167 - 5	158 - 4	132 - 4	108 - 3	88 - 3	110.71%	159.05%	112.86%	188.57%	102.86%	83.81%	2
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

**Life Science Courses – PRODUCTIVITY**

COURSES	FTES						FTEF						Productivity					
	F 09	S 10	F 10	S 11	F 11	S 12	F 09	S 10	F 10	S 11	F 11	S 12	F 09	S 10	F 10	S 11	F 11	S 12
ANTH 100	15.53	15.42	15.42	16.25	14.40	13.58	0.60	0.60	0.60	0.60	0.60	0.60	25.88	25.70	25.70	27.08	24.00	22.63
BIOL 120				7.13						0.27						26.41		
BIOL 122		4.11				5.76		0.27				0.27		15.22				21.33
BIOL 140		3.50		3.50		2.57		0.20		0.20				17.50		17.50		
BIOL 150		2.88		2.78		1.85		0.20		0.20				14.40		13.90		
BIOL 180	5.55		5.35		5.14		0.27		0.27		0.27		20.56		19.81		19.04	
BIOL 182		4.11		5.14		5.14		0.27		0.27				15.22		19.04		
BIOL 200	15.36	12.62	12.61	13.44	13.72	13.16	0.54	0.54	0.54	0.54	0.54	0.54	28.44	23.37	23.35	24.89	25.41	24.37
BIOL 202	6.86	6.86	7.13	6.31	7.13	13.16	0.27	0.27	0.27	0.27	0.27	0.54	25.41	25.41	26.41	23.37	26.41	24.37
BIOL 204	18.10	13.44	13.17	13.44	13.72	13.16	0.54	0.54	0.54	0.54	0.54	0.54	33.52	24.89	24.39	24.89	25.41	24.37
BIOL 206	7.41	6.31	7.41	6.31	6.31	6.86	0.27	0.27	0.27	0.27	0.27	0.27	27.44	23.37	27.44	23.37	23.37	25.41
BIOL 220	17.90	15.42	16.35	17.90	16.66	22.83	0.66	0.66	0.66	0.66	0.66	0.99	27.12	23.36	24.77	27.12	25.24	23.06
AG/ENVS 110	26.55	29.64	27.05	23.55	26.33	19.85	1.60	1.80	1.80	1.60	1.60	1.40	16.59	16.47	15.03	14.72	16.46	14.18
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																		
GEOL 100	17.07	11.52	13.17	11.11	9.46	9.25	0.81	0.54	0.54	0.54	0.54	0.54	21.07	21.33	24.39	20.57	17.52	17.13
GEOL 110	15.94	17.18	16.25	13.58	11.11	9.05	0.80	1.00	0.80	0.80	0.60	0.60	19.93	17.18	20.31	16.98	18.52	15.08
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

**Life Science Courses - COMPLETION & SUCCESS RATES**

COURSES	Completion Rate						Success Rate					
	F 09	S 10	F 10	S 11	F 11	S 12	F 09	S 10	F 10	S 11	F 11	S 12
ANTH 100	87.0%	88.0%	87.9%	91.1%	92.6%	92.0%	78.7%	79.7%	60.2%	85.5%	78%	85.4%
BIOL 120				96%						92%		
BIOL 122		93%		74%		81%		87%		35%		81%
BIOL 140		82%		81%		84%		59%		63%		48%
BIOL 150		79%				83%		79%				61%
BIOL 180	70%		62%		72%		63%		54%		68%	
BIOL 182		80%		84%		84%		55%		60%		72%
BIOL 200	80%	70%	72%	76%	64%	81%	77%	63%	57%	57%	52%	65%
BIOL 202	52%	88%	85%	74%	96%	88%	48%	80%	77%	70%	81%	75%
BIOL 204	59%	57%	50%	53%	62%	63%	47%	45%	46%	37%	52%	38%
BIOL 206	70%	61%	63%	74%	65%	80%	63%	61%	44%	65%	61%	66%
BIOL 220	91%	80%	91%	90%	76%	82%	72%	78%	77%	79%	76%	66%
AG/ENVS 110	89%	89%	87%	87%	94%	86%	66.0%	60.0%	66.0%	58.0%	69%	63.0%
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												
GEOL 100	86%	88%	78%	81%	65%	87%	66%	71%	55%	57%	57%	58%
GEOL 110	82%	77%	76%	83%	77%	73%	59%	52%	43%	46%	48%	48%
MATH 119	76%	84%	79%	87%	73%	86%	58%	68%	58%	70%	54%	64%

<b>Recent Enrollment Demand:</b>	High ___x___	Medium _____	Low _____
<b>Projection for Future Demand :</b>	Growing _____	Stable ___x___	Declining _____
<p><b>Opportunity Analysis:</b> (Successes, new curriculum development, alternative delivery mechanisms, interdisciplinary strategies, etc.)</p> <p>Currently, we only have 1.5 full-time chemistry instructors, with no part-time instructors. We do not offer enough CHEM 100 sections to maintain strong enrollment in CHEM 200 and CHEM 202. With an additional Chemistry instructor, both enrollment and number of sections offered for CHEM 200 and CHEM 202 could increase, giving students more opportunities to take upper-level Chemistry classes.</p> <p>In addition, we could use two more biology instructors, as we have lost instructors to retirement or advancement. With an additional instructor teaching BIOL 100, and another one teaching anatomy and physiology courses, we would be able to provide students with enough sections of those classes to help them get through this degree quicker, and to help students get through the science classes to get into the nursing program.</p>			
<p><b>Summary of Program "Health" Evaluation:</b> (Including consideration of size, score, productivity and quality of outcomes)</p> <p>The classes that comprise this degree are classes that typically fill above cap. While there have been only 5 degrees awarded in the past 3 years, overall, this is a very productive and healthy program, in terms of the FTES the program generates, and the fill rates of the classes.</p>			

### Student Learning Outcomes and Program Learning Outcomes

#### Student Learning Outcomes Assessment –completion

SLOs for Life Science degree classes have been assessed consistently.

Course	# Credits	Fall 2009	Spring 2010	Fall 2010	Spring 2011	Fall 2011	Spring 2012	Fall 2012	Spring 2013
BIOL120	4								Chien
BIOL122	4						1,2,3,4		
BIOL140	3		1,2,3		2				
BIOL150	3		2		1		3		Gilison
BIOL180	4	1		3		2		1,4	
BIOL182	4				1		4		Morrell
BIOL200	4	old	old	3	3	2	1	4	
BIOL202	4	old	4	2	1	4	3	1	
BIOL204	4	1		3	1	4	4	2	
BIOL206	4	old		4	2	3	1		Morrell
BIOL220	5		2		3		5	1,4	
CHEM100	4	old	old	Yes	1,2,3,4	3		1,3	
CHEM160	5					4,5		1,2,3	
CHEM200	5	old	old	Yes	1,2,3,4,5	1		1,2,3,4,5	
CHEM202	5	old	old	Yes	1,2,3,4,5	3		1,3,4,5	
CHEM204	5		old						
CHEM206	5								
GEOL100	4	1					1	2	
GEOL110	3	old					2	1	
MATH 119	4					4		2,3	Leon

#### Program Learning Outcomes Assessment

Four (4) PLOs have been identified for the Life Science degree, and one was assessed in the 2011-2012 academic year. We will probably reduce the number of PLOs for this degree to 3 in the future.

#### Success Rate of Student Learning Outcomes

SLOs for Life Science classes are assessed each year the class is offered.

#### Success Rate of Program Learning Outcomes

Only one of 4 PLOs has been assessed currently, and the other 3 will be assessed this academic year.

### **Future Goals of Program**

1. We can improve this program with the addition of one new chemistry instructor, and two new biology instructors. Unless that happens, there is not much change that would occur with this program. With decreasing enrollment in CHEM 202, we had to cancel the class in Spring 2013.
2. Our plan is to offer two sections of CHEM 200 in the Fall 2013 semester, and then one CHEM 200 and one CHEM 202 in the Spring 2014 semester to help increase enrollment in the CHEM 202 class

### **Resource Requests**

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

- Staffing: 1 Chemistry instructor, approximately \$80,000/year. We have been requesting this every year during APR and for CPR. A new Chemistry instructor is critical to help students get through CHEM 100, which is a prerequisite for chemistry classes (CHEM 200, 202, 204, 206 – in which enrollment has been declining), and is also a prerequisite for BIOL 200, 202, 206, and 220, which are the upper-level anatomy and physiology, and microbiology, classes that are needed for students to get into the nursing program.
- Staffing: 1 Biology instructor, approximately \$80,000/year. We have been requesting this every year during APR and for CPR. This position is critical for students to take BIOL 100, which is a prerequisite for upper-level biology classes that are needed for students to get into the nursing program.
- Staffing: 1 Anatomy & Physiology instructor, approximately \$80,000/year. We have been requesting this every year during APR and for CPR. This position is critical for students to get into the nursing program as we are not offering enough sections of BIOL 200, 202, 204 or 206.
- Budget: Twelve (12) dissecting microscopes, \$216 each (\$25,920 total). For various biology classes. The ones we currently have are very old and do not work well
- Technology: 1 laptop for instructors.