

Assessment: Program Review Updates prior to Fall 2018



Program (UnivSt) - University Studies: Science Teacher/Earth AA.1505

Program Catalog Summary: University Studies – 18 Unit Emphasis:
SC Program: AA.1505

This degree plan prepares the student to transfer as they prepare for a Single Subject Teaching Credential in Science, Earth Science Concentration. Courses in this plan are designed to develop breadth and to demonstrate multidisciplinary aspects across the Earth Sciences.

The Learning Outcomes correspond to the Institutional Student Learning Outcomes.

Complete the following 8 units:

- ESCI 1 Physical Geology (4)
- ESCI 2 Historical Geology (4) OR
- ESCI 6 Ancient Life (4)

Choose the remaining 12 units from the following list to include at least six units from science courses:

Science courses:

- AGNR 60 Environmental Science (3)
- AGNR 61 Environmental Science Lab (1)
- ASTR 1 Astronomy (3)
- CHEM 1B General Chemistry (5)
- ESCI 7, 9, 10, 14, 15, 17, 18, 32, 33, 34, 35, 36, 37, 38
- NHIS 15 Natural History (3)
- NHIS 65 Natural History of Patrick's Point (1)
- PHYS 2B General College Physics (4)

Courses from supporting disciplines:

- AGNR 1 Introduction to Natural Resources (3)
- AGNR 83 Introduction to Global Positioning Systems (1)
- CIS 1 Computer Literacy Workshop (3)
- GEOG 10 Introduction to Geographic Information Systems (3)
- MATH 3B Calculus 3B (5)
- MATH 14 Introduction to Statistics (4)

Fall 2017

Who completed this form?: Program Review Committee

Other factors for consideration: This is a University Studies degree and is reviewed by the PRC

****TO BE COMPLETED BY THE PROGRAM REVIEW COMMITTEE** PRC Action::** PRC recommends the program continue with qualification

Summary Date: 03/14/2018

Summary of findings: University Studies: Science Teacher AA. 1505

The PRC recommends this program continue with qualification. The program has averaged 4.2 completers per year over the past five years, and had 7 completers in 2016/17. There is one "core course" ESCI 1 and two others from which to choose as core, ESCI 2 & 6. However, the last time ESCI 2 was offered was Spring 2011 and it has been cancelled due to low enrollment Spring

2016, 2017, 2018. Enrollments have eroded 20.17 % from a high in year 2012/13 of 114 students with 8 sections, to a low of 91 students in year 2016/17 with 5 sections. The five-year average success rate for the two core courses (ESCI 1 & 6) is 74.79% above the Institution- Set Standard of 70%. Retention rates are strong with a five-year average of 88.48%. The SLO's for all classes have NOT been mapped to ISLO's, which serve as the program learning outcomes for the University and General Studies degrees.

The PRC recommends the following:

1. Earth Science faculty map the SLO's to ISLO's, which serve as the program learning outcomes for the University and General Studies degrees.
2. Program faculty consider offering or deactivating any courses not offered in the past 5 years.
3. The program faculty review enrollment trends and work on increasing (where appropriate to curriculum, SLO's and so forth) the student enrollments per section.

Note: This was re-reviewed on 4.11 as a result of Counseling input and faculty input. Our original recommendation stands.

Summary review date: 04/11/2018

Date summary sent to program faculty and/or counselors: 03/22/2018

Program faculty response: From Randy Reed: Some of the same arguments apply here, too, though this program has a good completion rate at 4.2 per year rising to 7 in 2016-17 and this should argue against the Program Review committees recommendation all on its own.

- I was away and sick with Leukemia Fall/Spring 2016-17 and it is this time frame when the section numbers hit the low mentioned (Though completes increased above the average).

- Since my return and progression in recovery, I've been trying to catch up to the workload I missed which includes mapping the SLO's and ISLO's.

- ESCI 2 was offered in the Spring of 2016, 2017 and was set to be offered in the Spring of 2018 but we lost Leslie and had to scramble to cover classes. ESCI 2 did not make enrollment quotas in 2016 and 2017 even though I was told because it is a degree-track course quotes would not be so stringent.

- In place of ESCI 2, students can and did choose ESCI 6.

- There are 2 Natural Science degrees and they are the second most awarded degrees on campus. I have had Geology majors go over to sign up for the program and counselors try to talk them into the Natural Science degree instead a degree they know well.

- Program Review needs to consider more than the stats they can pull from Tableau. Program success is multi-faceted and includes advertising and educating not just the councilors, but students inclusive of incoming high school students.

But further, and to the last point mentioned above, the completion rate has been good with a rise in 2016-17.

Again, as with the other two degrees (Oceanography and Geology) I have been considering modifying this degree and have a proposal developed that aligns with the Guided Pathways project. That idea piggybacks on the K-12 initiatives developed by the CDE Chancellor for STEM education and for Science Teachers. It also includes incorporating Physiology, Botany and Chemistry faculty and would add professional development opportunities for area science teachers for NGSS preparation.

Counselor response: From Sue Loring, Counselor: I agree with the recommendations for Geology, Oceanography and Psychology. I'm not sure there's a need for the University Studies –Science Teacher degree, though. The program allows students to select from a number of classes, many of which are not required for bachelor degree programs for science teachers. Students would need a recommendation about which classes are best choices, and some, like Chem 1A and Phys 2A, are not even included in the list. Students could accomplish the same goal (preparation for becoming a science teacher) by completing our Univ. Studies – Natural Sciences degree.

Date summary sent to College Council: 04/26/2018

Date reviewed by College Council: 05/01/2018

College Council response or additional action: Committee acknowledged receipt of program review recommendations.

Fall 2017 Program Review
Course Statistics

Course Name	Academic Year					
	2012-13	2013-14	2014-15	2015-16	2016-17	
AGNR-1	# of Sections	2	2	1	1	2
	Enrollment	49	47	20	23	44
	FTES	7.7	7.5	3.0	3.2	6.5
	FTEF	0.57	0.57	0.28	0.28	0.28
	WSCH	230	225	90	95	193
	Avg Enrl/Section	25	24	20	23	22
	Avg FTES FTEF	13.54	13.24	10.59	11.19	14.12
	Avg WSCH FTEF	406	397	318	335	424
AGNR-60	# of Sections	16	11	11	7	10
	Enrollment	367	267	288	257	254
	FTES	34.4	26.8	26.6	24.1	23.9
	FTEF	1.97	1.60	1.60	1.40	1.40
	WSCH	1,049	819	813	738	728
	Avg Enrl/Section	23	24	26	37	25
	Avg FTES FTEF	15.40	16.00	16.13	17.21	16.00
	Avg WSCH FTEF	471	489	493	527	488
AGNR-61	# of Sections	3	2	2	2	2
	Enrollment	64	47	50	46	57
	FTES	5.7	4.4	4.1	4.1	5.5
	FTEF	0.45	0.30	0.30	0.30	0.30
	WSCH	171	132	123	123	165
	Avg Enrl/Section	21	24	25	23	29
	Avg FTES FTEF	12.67	14.67	13.67	13.67	18.33
	Avg WSCH FTEF	380	440	410	410	550
AGNR-83	# of Sections	1				
	Enrollment	20				
	FTES	1.2				
	FTEF	0.11				
	WSCH	37				
	Avg Enrl/Section	20				
	Avg FTES FTEF	11.08				
	Avg WSCH FTEF	342				
ASTR-1	# of Sections	7	6	6	2	5
	Enrollment	417	297	282	159	107
	FTES	39.9	26.8	25.2	13.9	10.0
	FTEF	1.40	1.20	1.20	0.40	0.40
	WSCH	1,198	803	755	423	304
	Avg Enrl/Section	60	50	47	80	21
	Avg FTES FTEF	28.17	22.25	20.83	34.75	20.50
	Avg WSCH FTEF	856	669	629	1,058	625
CHEM-1B	# of Sections	4	4	4	4	3
	Enrollment	89	91	69	85	71
	FTES	20.5	18.2	16.3	19.1	15.4
	FTEF	1.27	1.07	1.07	1.07	0.65
	WSCH	616	545	490	574	462

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	Avg Enrl/Section	22	23	17	21	24
	Avg FTES FTEF	17.36	19.41	17.43	22.79	27.40
	Avg WSCH FTEF	521	582	523	684	822
CIS-1	# of Sections	32	37	40	54	52
	Enrollment	987	1,090	1,121	1,346	1,410
	FTES	99.7	118.3	109.4	136.6	143.1
	FTEF	6.78	8.95	8.23	8.23	8.47
	WSCH	3,335	4,074	4,087	4,935	5,133
	Avg Enrl/Section	31	29	28	25	27
	Avg FTES FTEF	14.69	13.18	12.05	12.50	12.73
	Avg WSCH FTEF	493	456	464	483	500
ESCI-1	# of Sections	6	3	2	2	3
	Enrollment	55	30	19	28	24
	FTES	8.6	5.4	3.6	4.6	3.4
	FTEF	0.59	0.35	0.35	0.22	0.29
	WSCH	258	162	108	138	102
	Avg Enrl/Section	9	10	10	14	8
	Avg FTES FTEF	10.29	13.14	9.14	7.43	8.00
	Avg WSCH FTEF	309	394	274	223	240
ESCI-6	# of Sections	2	2	2	2	2
	Enrollment	61	73	59	59	67
	FTES	11.4	13.8	11.4	10.6	11.2
	FTEF	0.70	0.70	0.70	0.70	0.70
	WSCH	342	414	342	318	336
	Avg Enrl/Section	31	37	30	30	34
	Avg FTES FTEF	16.29	19.71	16.29	15.14	16.00
	Avg WSCH FTEF	489	591	489	454	480
ESCI-7	# of Sections				1	
	Enrollment				18	
	FTES				3.0	
	FTEF				0.35	
	WSCH				90	
	Avg Enrl/Section				18	
	Avg FTES FTEF				8.57	
	Avg WSCH FTEF				257	
ESCI-9	# of Sections	2	3	4	4	7
	Enrollment	72	111	159	162	157
	FTES	6.0	8.3	12.7	13.6	13.8
	FTEF	0.40	0.60	0.80	0.80	0.97
	WSCH	186	256	392	419	423
	Avg Enrl/Section	36	37	40	41	22
	Avg FTES FTEF	15.00	13.83	15.88	17.00	13.00
	Avg WSCH FTEF	465	427	490	524	399
ESCI-10	# of Sections			4		1
	Enrollment			20		9
	FTES			2.0		1.8
	FTEF			0.35		0.35

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	WSCH		60		54
	Avg Enrl/Section		5		9
	Avg FTES FTEF		2.86		5.14
	Avg WSCH FTEF		86		154
ESCI-15	# of Sections	2	2	2	2
	Enrollment	67	76	70	69
	FTES	12.2	13.4	13.4	12.6
	FTEF	0.70	0.70	0.70	0.70
	WSCH	366	402	402	378
	Avg Enrl/Section	34	38	35	35
	Avg FTES FTEF	17.43	19.14	19.14	18.00
	Avg WSCH FTEF	523	574	574	540
ESCI-17	# of Sections	4	4		4
	Enrollment	24	27		36
	FTES	2.2	2.3		3.0
	FTEF	0.20	0.20		0.20
	WSCH	66	69		90
	Avg Enrl/Section	6	7		9
	Avg FTES FTEF	4.50	8.50		9.00
	Avg WSCH FTEF	135	255		270
ESCI-18	# of Sections	5	5	5	2
	Enrollment	66	49	51	52
	FTES	6.4	4.5	4.6	3.7
	FTEF	0.40	0.40	0.40	0.40
	WSCH	195	137	140	114
	Avg Enrl/Section	13	10	10	26
	Avg FTES FTEF	14.50	8.50	9.00	9.25
	Avg WSCH FTEF	443	260	275	285
ESCI-34	# of Sections			1	
	Enrollment			22	
	FTES			1.6	
	FTEF			0.14	
	WSCH			46	
	Avg Enrl/Section			22	
	Avg FTES FTEF			11.08	
	Avg WSCH FTEF			325	
ESCI-35	# of Sections	1			1
	Enrollment	27			18
	FTES	1.9			1.0
	FTEF	0.14			0.14
	WSCH	54			28
	Avg Enrl/Section	27			18
	Avg FTES FTEF	13.27			7.13
	Avg WSCH FTEF	381			198
ESCI-36	# of Sections		1		
	Enrollment		26		
	FTES		1.4		

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	FTEF		0.14		
	WSCH		38		
	Avg Enrl/Section		26		
	Avg FTES FTEF		9.67		
	Avg WSCH FTEF		268		
ESCI-37	# of Sections	1		1	
	Enrollment	39		15	
	FTES	2.0		1.2	
	FTEF	0.14		0.14	
	WSCH	59		33	
	Avg Enrl/Section	39		15	
	Avg FTES FTEF	14.33		8.12	
	Avg WSCH FTEF	416		233	
ESCI-38	# of Sections	1		1	
	Enrollment	28		20	
	FTES	1.9		1.1	
	FTEF	0.14		0.14	
	WSCH	57		32	
	Avg Enrl/Section	28		20	
	Avg FTES FTEF	13.69		7.62	
	Avg WSCH FTEF	402		226	
GEOG-10	# of Sections	1	2	1	1
	Enrollment	26	25	19	17
	FTES	1.8	3.8	2.5	2.8
	FTEF	0.28	0.57	0.28	0.28
	WSCH	93	115	75	85
	Avg Enrl/Section	26	13	19	17
	Avg FTES FTEF	6.35	6.76	8.82	9.99
	Avg WSCH FTEF	328	203	265	300
MATH-3B	# of Sections	4	4	4	3
	Enrollment	143	111	100	98
	FTES	18.9	15.5	17.2	17.9
	FTEF	1.07	1.07	1.33	1.00
	WSCH	568	464	517	536
	Avg Enrl/Section	36	28	25	33
	Avg FTES FTEF	17.75	14.50	12.93	17.87
	Avg WSCH FTEF	532	435	388	536
MATH-14	# of Sections	37	43	42	44
	Enrollment	1,244	1,281	1,235	1,294
	FTES	154.3	165.2	163.7	169.2
	FTEF	8.55	9.88	9.61	10.15
	WSCH	4,652	4,985	4,945	5,111
	Avg Enrl/Section	34	30	29	29
	Avg FTES FTEF	17.43	15.83	16.54	15.89
	Avg WSCH FTEF	526	478	500	481
NHIS-15	# of Sections	5	5	4	5
	Enrollment	59	58	24	55

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	FTES	5.5	5.4	2.2	5.4	5.7
	FTEF	0.40	0.40	0.20	0.40	0.37
	WSCH	165	162	66	162	174
	Avg Enrl/Section	12	12	6	11	14
	Avg FTES FTEF	11.25	7.75	3.50	7.00	10.00
	Avg WSCH FTEF	338	233	105	210	308
PHYS-2B	# of Sections	2	2	2	2	2
	Enrollment	35	38	31	30	33
	FTES	7.0	7.4	5.4	6.0	6.6
	FTEF	0.50	0.50	0.50	0.50	0.50
	WSCH	210	222	162	180	198
	Avg Enrl/Section	18	19	16	15	17
	Avg FTES FTEF	17.24	18.19	14.95	13.14	16.29
	Avg WSCH FTEF	517	546	449	394	489
Grand Total	# of Sections	136	138	139	144	147
	Enrollment	3,199	3,140	3,111	3,313	3,411
	FTES	445.5	448.3	427.3	456.2	469.1
	FTEF	26.32	29.05	28.47	27.66	27.78
	WSCH	13,755	14,061	13,685	14,590	14,930
	Avg Enrl/Section	24	23	22	23	23
	Avg FTES FTEF	16.41	14.97	14.46	14.84	15.06
	Avg WSCH FTEF	508	471	467	481	492

Fall 2017 Program Review
Success and Retention

Course Name	Title		Academic Year				
			2012-13	2013-14	2014-15	2015-16	2016-17
AGNR-1	Intro to Natural Resources	Success	78.26%	75.56%	77.78%	68.42%	80.33%
		Retention	86.96%	88.89%	100.00%	84.21%	83.61%
AGNR-60	Environmental Science	Success	77.19%	64.93%	64.18%	69.51%	73.98%
		Retention	90.94%	91.42%	86.94%	91.06%	86.99%
AGNR-61	Environmental Science Lab	Success	86.21%	79.55%	87.80%	69.05%	70.69%
		Retention	89.66%	90.91%	95.12%	83.33%	81.03%
AGNR-83	Intro Global Position Systems	Success	89.47%				
		Retention	89.47%				
ASTR-1	Astronomy	Success	55.47%	52.45%	58.57%	67.38%	62.14%
		Retention	78.63%	80.75%	77.29%	88.65%	83.50%
CHEM-1B	General Chemistry	Success	79.78%	88.51%	78.87%	84.15%	87.14%
		Retention	87.64%	94.25%	91.55%	91.46%	98.57%
CIS-1	Computer Literacy Workshop	Success	75.67%	68.15%	69.53%	74.40%	76.11%
		Retention	92.08%	91.91%	90.43%	91.88%	92.13%
ESCI-1	Physical Geology	Success	75.00%	88.89%	88.89%	73.91%	70.00%
		Retention	86.36%	96.30%	94.44%	86.96%	75.00%
ESCI-6	Ancient Life	Success	66.67%	75.00%	75.44%	77.36%	69.64%
		Retention	91.23%	89.71%	89.47%	88.68%	85.71%
ESCI-7	Intro to Geology of California	Success				80.00%	
		Retention				100.00%	
ESCI-9	Earthquakes/Volcanoes/Geol Haz	Success	64.41%	59.52%	49.62%	48.55%	70.92%
		Retention	83.05%	83.33%	77.86%	73.91%	83.69%
ESCI-10	Environmental Geology	Success			100.00%		87.50%
		Retention			100.00%		100.00%
ESCI-15	Oceanography	Success	86.89%	85.07%	71.64%	70.42%	58.73%
		Retention	96.72%	92.54%	85.07%	87.32%	84.13%
ESCI-17	Earth System Science	Success	63.64%	69.57%		67.74%	
		Retention	90.91%	95.65%		87.10%	
ESCI-18	Glob Climate-Past/Prsnt/Future	Success	69.35%	71.74%	63.83%	45.95%	
		Retention	88.71%	93.48%	80.85%	72.97%	
ESCI-34	Geology of Modoc Plateau	Success			76.19%		
		Retention			95.24%		
ESCI-35	Geology of Lassen Volcanic Prk	Success	88.46%			55.56%	
		Retention	88.46%			66.67%	
ESCI-36	Geology of Mt. Shasta/Vicinity	Success		63.64%			
		Retention		90.91%			
ESCI-37	Geology of No. California Coast	Success		63.89%		100.00%	
		Retention		80.56%		100.00%	
ESCI-38	Geol Pt. Reyes Natl Seashore	Success	78.57%		65.00%		
		Retention	96.43%		85.00%		
GEOG-10	Intro to Geographic Info Syst	Success		83.33%	72.73%	86.67%	82.35%
		Retention		88.89%	77.27%	86.67%	82.35%
MATH-3B	Calculus 3B	Success	59.86%	51.28%	55.77%	55.05%	69.15%
		Retention	76.76%	79.49%	76.92%	88.07%	90.43%
MATH-14	Introduction to Statistics	Success	60.80%	62.20%	61.33%	55.12%	61.28%
		Retention	82.30%	84.23%	81.63%	79.14%	82.86%
NHIS-15	Natural History	Success	74.55%	83.33%	72.73%		
		Retention	87.27%	98.15%	86.36%		
	Natural History of California	Success				78.18%	81.36%
		Retention				90.91%	94.92%

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Success and Retention

PHYS-2B	General College Physics	Success	94.29%	91.89%	96.43%	90.00%	91.18%
		Retention	97.14%	97.30%	96.43%	93.33%	100.00%
Grand Total		Success	68.46%	65.79%	65.19%	65.79%	69.63%
		Retention	86.25%	87.84%	85.04%	86.01%	87.30%

Fall 2017 Program Review
Program Awards

Award Type	Program Type - TOP61	2012-13	2013-14	2014-15	2015-16	2016-17
Associate of Arts (A.A.) degree	Liberal Studies-490120	4	4	4	2	7
Grand Total		4	4	4	2	7