

Assessment: Program Review Updates prior to Fall 2018



Program (CIS) - Computer and Information Systems: Systems Management AS.1157

Program Catalog Summary:

Associate in Science:

SC Program: AS.1157

PROGRAM DESCRIPTION: This degree combines the core business courses with courses in the Information Technology (IT) skills area. It prepares you to enter the workforce in an entry level IT related position with many public and private organizations, or to start your own IT related business. The degree also prepares you to transfer to a four-year institution and complete a bachelor's degree in an IT related area.

This degree is approved through the California Community College Chancellor's Office. Upon satisfactory completion of all degree requirements and filing an application for graduation with Admissions and Records, the student's transcript will reflect completion of this degree.

PROGRAM LEARNING OUTCOMES:

Upon successful completion of this degree, the student should be able to:

1. Demonstrate at a fundamental level of knowledge and understanding of business practices including finance, accounting, marketing, management, human relations, e-commerce, legal and ethical considerations.
2. Given a set of requirements design, develop, and debug a computer program that satisfies the requirements.
3. Demonstrate competence using office software including database, spreadsheet, and word processing.
4. Given a set of requirements design and build a web page that meets the requirements.
5. Build and troubleshoot a computer network involving three computers, an ethernet switch, and IP addressing.

DEGREE REQUIREMENTS:

CORE COURSES:

- ART 80A Graphic Design 3
- BUAD 10 * Introduction to Business (fulfills GE requirement) 3
- BUAD 66 * Business Communications 3
- BUAD 71 Introduction to e-Commerce 1
- BUAD 72 e-Commerce Marketing 1
- BUAD 80 Principles of Customer Service 3
- CIS 2 * Introduction to Computer Science 4
- CIS 20 Access for Windows 1
- CIS 23 Fundamentals of SQL 3
- CIS 60 * Visual Basic Programming 3
- CIS 62 * Java Programming 3
- CIS 64 Web Programming Using JAVA/PHP/FLASH 3
- CIS 73 Photoshop 1
- CIS 83 Web Design Using Dreamweaver 2
- CIS 86 HTML 3
- CIS 92 Computer Security 3
- OAS 10 Excel for Windows – 1 1

*May be used to fulfill General Education requirements. See a counselor.

ASSOCIATE IN SCIENCE DEGREE REQUIREMENTS:

Major	41
Additional General Education	15
General Electives	4
Degree Total	60*

*Note: Calculation assumes a student will double-count the Multicultural graduation requirement with either a social science or humanities G.E. requirement and that the student will fulfill computer literacy through a test. If students plan well and see a counselor, they may be able to double count the Multicultural and Computer Literacy units. If these graduation requirements are added, the number of units is increased by 6 units.

Fall 2017

Prepared By: Lew Schmitt, Tom Martin, Dhabih Hendershot & Jeff Hendrickson

What improvements are needed? Please reference items from any associated program reviews as needed.: To improve student outcomes this program needs two additional full-time faculty, one as a replacement for a probable retirement which is supported by our data. The program needs to update hardware to current industry standards, collaborate with local high schools to communicate our updated curriculum and develop guided pathways, develop a student success plan with our new student success coordinator, send CIS faculty for professional development to keep our skills current and develop a marketing plan with EWD. This program operates both night and day classes and needs large blocks of time in computer labs with updated hardware. It is important that we maintain sufficient computer lab classrooms in order to schedule courses when students need them and provide open lab time for our students to get help on their classwork. Currently our CIS students are not supported by any other supervised tutoring lab. Technology is part of many classes and programs beyond our department and student need a place to go for help.

Who completed this form?: Lew Schmitt, Tom Martin, Dhabih Hendershot & Jeff Hendrickson

Participation in the report: Area Faculty (list in the next box), Advisory Committee (if one exists), Other (such as counselors-outside area faculty-deans)

Summarize Participation comments: Technology in our labs is trailing behind industry standards

New faculty and para-professional needed

New equipment needed

Recommendation for Discontinuance?: No

Analyze Overall PLO achievement: PLO achievement is very high. over 95% of students earning the degree have achieved the PLO's. CIS Faculty are currently reviewing the PLO's and developing additional PLO's for this program which will be updated shortly.

What changes could be (or have been) made to improve the program?: CIS faculty along with advisory committee have restructured this certificate to align with current industry standards and to align within a stackable certificate and degree pathway that leads from the high schools and on to four year institutions. Each course has been reviewed and updated as well. Faculty have successfully applied for funding for a partial upgrade to some equipment but additional funding is needed to bring us in line with mandated industry changes and to adequately prepare our student for the workforce.

Resources needed to implement the changes noted above: Two additional faculty with one replacement for a potential retirement

Updated switches and routers, rack mounts, cabling, tools, USB drives, ssd drives, wireless access in the computer labs, dual monitors in the lab, new classroom projectors, NetOp software, Classroom display devices and high end pc's and laptops, classroom color printers with wireless printing, scanners, and other devices that improve our ability to deliver quality education. Professional Development for CIS faculty to update skills and knowledge

Additional computer lab classrooms as it is difficult to schedule courses when students need them and we are already offering sections in the evening.

Open lab with paraprofessional to support CIS students with course work

Labor Market Demand: LMI data shows technology industry jobs are increasing every year across the nation and particularly in California. Local demand is also very strong with many positions remaining open. Our advisory committee reports that they do not bother to list many of their IT related jobs because of the lack of response of qualified workers and rely instead on their social networks to provide references. CIS faculty have referred more than ten students who have been hired this past year at local business. CIS Faculty has also created a LinkedIn group for current and former students where new jobs are posted. Currently we have over 800 members.

Duplication of training: There are no similar programs in the area

Program effectiveness: This program measures its effectiveness by Perkins Core Indicators as reported by the Chancellor's office and college generated data read with Tableau.

Other data indications for program improvement: Our Tableau data shows that our success (77%) and retention (92%) rates are higher than the college goals of 70% and 80%.

Perkins Core Indicators show good success rates as well and also show we need to help students fill out the college paperwork to officially “complete” certificates and degrees which will be addressed in our student success plan.

Replicating community college programs north of Sacramento?: None

CSU and UC Transfer impact analysis:: Few of our students in this program transfer as their goal is employment or promotions. We do keep in contact with CSU Chico and Southern Oregon University where we have developed pathways to four year degrees. Those student who do transfer tend to favor those locations.

Influence on related programs and services: This degree is the final local step in a series of stackable certificates and degrees and can lead the student to a four year institution if they choose.

Specific additional program reflections: Our advisory committee has long indicated that an improvement on student social job skills is needed. We have added team projects and presentations into our courses which has shown to be somewhat effective and are currently developing modules from the 21st Century Job Skills and Growth Mindset curriculum to incorporate into several classes

Other factors for consideration: This program has sections scheduled during the day and night and requires large block of time in computer lab classrooms. As we plan for new buildings it will be important that we maintain a higher number of labs than we currently have to allow for growth and an open tutoring lab focused on technology related courses. Most courses in this program have an online component.

****TO BE COMPLETED BY THE PROGRAM REVIEW COMMITTEE** PRC Action::** PRC recommends the program continue without qualification

Summary Date: 01/30/2019

Summary of findings: Note: The catalog description in Nuventive Improve does not match the last two catalogs. The statistics and information herein are relative to the catalog description prior to 2017/18. Significant changes in courses assigned to this degree have taken place.

The PRC recommends this program continue without qualification. The program has a four-year average of 7.75 completers (2013/14 to 2017/18). The 5-year average success rate for all degree classes is 75.74%, which is above the Institution-set Standard of 70%. Retention rates are very strong with a five-year average of 91.02% for classes in the degree. Enrollments appear to be well-maintained with a 5-year average of 20.6 students per section. There has been an increase in enrollments from 289 in year 2012/13 to 368 in year 2016/17 which is a 29.15% jump. The increase in sections for the same time periods from 72 to 107 is a 48.61 % increase. However, the changes to courses aligned with the degree are so vast that these statistic have little relevance. The PLO’s have been mapped to ISLO’s, SLO’s to PLO’s and SLO’s to ISLO’s for classes in the degree (as it is currently listed in the catalog).

The PRC recognizes the dynamic nature of the CIS program and support their efforts in maintaining a vibrant and relevant curriculum. Commenting on specific changes to core offerings is a feature for future program review reports. We also encourage future program review reports be more differentiated between degrees and certificates and further encourage incorporating or attaching Advisory Committee comments or minutes (e.g. CL 3441 and AS 1157 have largely the same verbiage).

Summary review date: 02/20/2019

Date summary sent to program faculty and/or counselors: 02/25/2019

Program faculty response: Counselors: Carolyn Borg: I support the recommendation to continue without qualification. The Systems Management program is popular with students.

Probably outside the scope of your committee, but I’d like to see the “CIS program stackable certificates” chart included in the catalog. Dhabih Hendershot has the original, might need an update. Sue Loring also supports.

Faculty member Tom Martin: Thank you Stacy for your comments and suggestions. Please pass on our appreciation to your team.

Date summary sent to College Council: 03/27/2019

Date reviewed by College Council: 04/02/2019

Fall 2017 Program Review
Course Statistics

Course Name		Academic Year				
		2012-13	2013-14	2014-15	2015-16	2016-17
ART-80A	# of Sections	2	2	1	2	2
	Enrollment	46	62	33	52	49
	FTES	5.6	9.0	5.8	9.0	8.8
	FTEF	0.44	0.33	0.16	0.33	0.33
	WSCH	168	270	174	270	264
	Avg Enrl/Section	23	31	33	26	25
	Avg FTES FTEF	8.62	13.85	17.85	13.85	13.54
	Avg WSCH FTEF	258	415	535	415	406
	BUAD-10	# of Sections	20	21	20	19
Enrollment		662	653	627	640	667
FTES		56.6	62.1	57.8	59.9	64.0
FTEF		3.20	3.60	3.20	3.15	3.33
WSCH		1,719	1,876	1,752	1,817	1,915
Avg Enrl/Section		33	31	31	34	32
Avg FTES FTEF		17.25	16.68	16.66	17.56	17.09
Avg WSCH FTEF		524	505	508	536	522
BUAD-66		# of Sections	9	5	8	8
	Enrollment	209	176	198	187	160
	FTES	18.0	16.1	18.6	17.2	14.8
	FTEF	1.20	1.00	1.20	1.14	1.20
	WSCH	548	491	566	524	454
	Avg Enrl/Section	23	35	25	23	20
	Avg FTES FTEF	13.42	16.10	14.33	14.00	11.42
	Avg WSCH FTEF	409	491	437	427	351
	BUAD-71	# of Sections	1	1	1	1
Enrollment		35	34	35	36	34
FTES		1.1	1.0	1.1	1.2	1.0
FTEF		0.07	0.07	0.07	0.07	0.07
WSCH		34	32	34	37	32
Avg Enrl/Section		35	34	35	36	34
Avg FTES FTEF		16.49	15.44	16.49	17.99	15.44
Avg WSCH FTEF		510	480	510	555	480
BUAD-72		# of Sections	1	1	1	1
	Enrollment	34	28	33	35	39
	FTES	1.0	0.9	1.0	1.1	1.3
	FTEF	0.07	0.07	0.07	0.07	0.07
	WSCH	30	27	31	33	39
	Avg Enrl/Section	34	28	33	35	39
	Avg FTES FTEF	14.54	13.04	14.99	16.04	19.04
	Avg WSCH FTEF	450	405	465	495	585
	BUAD-80	# of Sections	3	8	3	7
Enrollment		113	147	100	112	117
FTES		10.4	13.3	8.8	10.1	10.8
FTEF		0.60	1.00	0.60	0.80	0.80
WSCH		321	406	272	310	332

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Course Statistics

	Avg Enrl/Section	38	18	33	16	17
	Avg FTES FTEF	17.33	12.40	14.67	11.13	12.25
	Avg WSCH FTEF	535	379	453	343	378
CIS-2	# of Sections	8	8	8	11	12
	Enrollment	264	261	237	302	326
	FTES	32.7	31.9	30.0	38.1	41.5
	FTEF	2.14	2.14	2.14	1.87	1.87
	WSCH	990	968	910	1,130	1,224
	Avg Enrl/Section	33	33	30	27	27
	Avg FTES FTEF	15.31	14.94	14.07	15.86	17.00
	Avg WSCH FTEF	464	454	427	482	516
CIS-20	# of Sections	2	2	2	2	2
	Enrollment	65	69	66	71	69
	FTES	2.3	2.2	2.0	2.2	2.2
	FTEF	0.18	0.18	0.18	0.18	0.18
	WSCH	85	100	94	101	102
	Avg Enrl/Section	33	35	33	36	35
	Avg FTES FTEF	12.38	12.34	11.66	12.34	12.57
	Avg WSCH FTEF	463	571	537	577	583
CIS-23	# of Sections		1	1	1	1
	Enrollment		27	32	33	30
	FTES		3.3	2.8	3.1	3.0
	FTEF		0.24	0.24	0.24	0.24
	WSCH		100	115	128	123
	Avg Enrl/Section		27	32	33	30
	Avg FTES FTEF		13.78	11.58	12.83	12.41
	Avg WSCH FTEF		414	476	530	509
CIS-60	# of Sections	1			1	1
	Enrollment	17			21	27
	FTES	2.5			1.9	4.7
	FTEF	0.28			0.28	0.28
	WSCH	75			98	140
	Avg Enrl/Section	17			21	27
	Avg FTES FTEF	8.82			6.71	16.48
	Avg WSCH FTEF	265			346	494
CIS-62	# of Sections	1	1	1	1	1
	Enrollment	33	38	32	31	34
	FTES	5.5	6.2	3.0	5.2	5.5
	FTEF	0.28	0.28	0.28	0.28	0.28
	WSCH	165	185	154	155	165
	Avg Enrl/Section	33	38	32	31	34
	Avg FTES FTEF	19.41	21.78	10.59	18.25	19.41
	Avg WSCH FTEF	582	653	544	547	582
CIS-64	# of Sections	1	1	1	1	1
	Enrollment	31	29	33	27	30
	FTES	5.2	4.5	4.8	4.0	4.5
	FTEF	0.28	0.28	0.28	0.28	0.28

Fall 2017 Program Review
Course Statistics

	WSCH	155	135	145	120	135
	Avg Enrl/Section	31	29	33	27	30
	Avg FTES FTEF	18.25	15.88	17.05	14.12	15.88
	Avg WSCH FTEF	547	477	512	424	477
CIS-73	# of Sections	3	4	5	9	11
	Enrollment	76	80	103	184	253
	FTES	3.5	5.2	6.4	12.3	13.5
	FTEF	0.22	0.43	0.11	0.11	0.22
	WSCH	105	154	174	332	368
	Avg Enrl/Section	25	20	21	20	23
	Avg FTES FTEF	15.70	11.93	17.27	19.67	10.30
	Avg WSCH FTEF	485	355	536	609	416
CIS-83	# of Sections	2	5	4	5	4
	Enrollment	48	102	67	70	88
	FTES	4.0	7.7	5.9	6.6	7.4
	FTEF	0.35	0.35	0.18	0.18	0.18
	WSCH	120	232	160	193	228
	Avg Enrl/Section	24	20	17	14	22
	Avg FTES FTEF	11.43	10.29	8.00	9.14	11.83
	Avg WSCH FTEF	343	309	240	274	514
CIS-86	# of Sections	1	4	4	2	2
	Enrollment	26	67	82	43	47
	FTES	2.3	5.6	6.6	4.1	4.4
	FTEF	0.20	0.80	0.20	0.20	0.20
	WSCH	69	166	179	113	126
	Avg Enrl/Section	26	17	21	22	24
	Avg FTES FTEF	11.50	7.04	8.50	8.00	10.50
	Avg WSCH FTEF	345	208	255	240	315
CIS-92	# of Sections	1	1	1	2	2
	Enrollment	25	27	27	46	35
	FTES	3.3	3.5	3.1	6.3	4.1
	FTEF	0.24	0.24	0.24	0.48	0.48
	WSCH	100	104	96	188	124
	Avg Enrl/Section	25	27	27	23	18
	Avg FTES FTEF	13.78	14.36	13.24	12.95	8.56
	Avg WSCH FTEF	414	430	397	389	257
OAS-10	# of Sections	16	22	21	25	30
	Enrollment	388	476	425	578	714
	FTES	10.6	18.1	17.5	23.8	28.3
	FTEF	0.92	1.94	0.70	0.79	0.79
	WSCH	367	629	595	769	898
	Avg Enrl/Section	24	22	20	23	24
	Avg FTES FTEF	11.43	9.33	12.76	12.24	11.26
	Avg WSCH FTEF	400	326	530	491	475
Grand Total	# of Sections	72	87	82	98	107
	Enrollment	1,657	1,775	1,675	1,973	2,140
	FTES	164.6	190.6	175.3	205.9	219.8

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FTEF	10.67	12.94	9.85	10.44	10.79
WSCH	5,051	5,875	5,451	6,318	6,669
Avg Enrl/Section	23	20	20	20	20
Avg FTES FTEF	14.56	12.96	14.53	14.59	14.23
Avg WSCH FTEF	455	410	477	475	469

**Fall 2017 Program Review
Success and Retention**

Course Name	Title		Academic Year				
			2012-13	2013-14	2014-15	2015-16	2016-17
ART-80A	Graphic Design	Success	77.78%	53.33%	96.55%	86.67%	81.25%
		Retention	85.19%	80.00%	96.55%	93.33%	87.50%
BUAD-10	Introduction to Business	Success	73.29%	71.43%	64.14%	64.72%	72.37%
		Retention	88.87%	90.69%	89.66%	89.27%	90.99%
BUAD-66	Business Communications	Success	69.71%	66.06%	64.36%	61.11%	57.62%
		Retention	82.86%	84.24%	82.45%	76.11%	78.15%
BUAD-71	Introduction to E-Commerce	Success	79.31%	74.19%	87.50%	86.11%	90.91%
		Retention	82.76%	77.42%	96.88%	97.22%	93.94%
BUAD-72	E-Commerce Marketing	Success	57.14%	64.29%	70.00%	68.75%	76.92%
		Retention	89.29%	85.71%	86.67%	93.75%	92.31%
BUAD-80	Principles of Customer Service	Success	84.31%	71.64%	73.86%	75.25%	79.13%
		Retention	96.08%	88.81%	90.91%	91.09%	93.91%
CIS-2	Intro to Computer Science	Success	70.49%	70.29%	64.32%	68.52%	72.29%
		Retention	87.30%	91.21%	85.46%	89.84%	91.87%
CIS-20	Access for Windows I	Success	74.55%	80.60%	69.35%	80.00%	78.79%
		Retention	87.27%	89.55%	88.71%	93.85%	89.39%
CIS-23	Fundamentals of SQL	Success		84.00%	67.86%	61.29%	60.00%
		Retention		96.00%	89.29%	83.87%	80.00%
CIS-60	Visual Basic Programming	Success	46.67%			52.63%	70.37%
		Retention	73.33%			89.47%	85.19%
CIS-62	Java Programming	Success	59.38%	64.86%	63.33%	70.97%	73.53%
		Retention	78.13%	78.38%	83.33%	83.87%	94.12%
CIS-64	Web Prog Using Java/PHP/Flash	Success	62.07%	59.26%	65.52%	62.50%	65.52%
		Retention	89.66%	81.48%	79.31%	91.67%	93.10%
CIS-73	Photoshop	Success	86.15%	92.68%	92.00%	90.67%	91.14%
		Retention	90.77%	97.56%	96.00%	95.56%	97.42%
CIS-83	Intro to Web Design	Success					95.60%
		Retention					96.70%
	Web Design Using Dreamweaver	Success	89.47%	90.00%	95.31%	93.59%	
		Retention	92.11%	97.00%	98.44%	96.15%	
CIS-86	HTML	Success	65.00%	88.41%	94.94%	68.75%	98.04%
		Retention	80.00%	98.55%	98.73%	85.42%	98.04%
CIS-92	Intro to Computer Security	Success	84.00%	100.00%	91.30%	75.00%	53.13%
		Retention	96.00%	100.00%	100.00%	95.83%	87.50%
OAS-10	Excel for Windows I	Success	87.04%	81.82%	80.00%	88.64%	84.11%
		Retention	94.65%	95.56%	94.02%	97.16%	95.57%
Grand Total		Success	76.03%	75.45%	73.02%	75.92%	78.30%
		Retention	89.25%	91.34%	90.46%	91.54%	92.53%

Fall 2017 Program Review
Program Awards

Award Type	Program Type - TOP61	2012-13	2014-15	2015-16	2016-17
Associate of Science (A.S.) degree	Computer Information Systems-070200	1	1	2	3
Grand Total		1	1	2	3