

LAKE TAHOE COMMUNITY COLLEGE
ENVIRONMENTAL SCIENCE & TECHNOLOGY ADVISORY COMMITTEE MEETING

WEDNESDAY MARCH 3, 2021 3:00-4:30PM (<https://cccconfer.zoom.us/j/97299722819>)



- Welcome and Introductions
- Annual Program Review & Updates (2019-20)
- Feedback from Industry Partners
- Perkins Funding



Science, Technology, and Environment

Explore • Discover • Analyze

Understand the physical world by using the scientific methods of observation, experimentation, and analysis. Deepen your knowledge of the natural world and gain hands-on experience with advanced scientific tools. Ideal for careers in computer science, environmental engineering, medicine, or GIS mapping.

- Computer Information Sciences – Associate Degree/Certificate of Achievement/Employable Skills Certificate
- **Environmental Science & Studies – Associate Degrees /Certificate of Achievement/Employable Skills Certificates**
- Geographic Information Systems (GIS)– Employable Skills Certificate
- Geography – Associate Degree for Transfer
- Liberal Arts – Associate Degrees/Certificates of Achievements
- Mathematics – Associate Degree for Transfer
- Natural Sciences – Associate Degree/Certification of Achievement

ENVIRONMENTAL SCIENCE & TECHNOLOGY CERTIFICATE OF ACHIEVEMENT

Overview: The **Certificate of Achievement in Environmental Science and Technology** is designed to provide students with a framework for learning about and solving environmental issues. Coursework is designed to provide students with the theoretical knowledge and the technical skills needed for entry-level employment in a variety of environmental fields; to improve chances of employability or job placement opportunities; to provide skills training that may result in wage progression; and/or prepare students for continued study leading to a more advanced degree in the environmental sciences. With an interdisciplinary program of study, and laboratory and field-based learning experiences, students will gain an understanding of environmental components, processes, and issues. For more information about this program, contact Scott Valentine by email at: valentine@ltcc.edu Catalog: 2020-21

Program Learning Outcomes:

- Use scientific methods to identify issues, understand relationships, and solve problems.
- Evaluate environmental issues in local and global contexts.

A. REQUIRED COURSES:

28-30.75 units distributed as follows:

All courses from the following (5 units):

EVS 101 Environmental Science (4)

EVS 101L Environmental Science Lab (1)

One course from the following (5 – 5.75 units):

CHM 100 Introduction to General Chemistry (5)

CHM 101 General Chemistry I (5.75)

PHS 102 Survey of Concepts in Chemistry and Physics (5)

A minimum of 10 units from the following:

EVS 106 Environmental Field Methods (2.5)

EVS 133 Internship Occupational Work Experience (1-6)

GEG 107 Water Quality Monitoring of Streams and Lakes (2.5)

GEG 134/CIS 135A Introduction to Geographic Information Systems (3.5)

GEG 135/CIS 135B Intermediate Geographic Information Systems (3.5)

Two courses (not already used above) from the following (8-10.75 units):

BIO 101 Principles of Biology I (5)

BIO 149 Ecology (5)

BIO 201 Botany (5)

BIO 212 Zoology (5)

CHM 101 General Chemistry I (5.75)

GEG 101 Physical Geography (5)

GEG 108 Water Resources (4)

GEG 113 Meteorology (4)

GEL 102 Physical Geology (5)

MAT 201 Elementary Statistics (5)

PHS 117 Oceanography (5)

PHY 104 General Physics I (5)

TOTAL UNITS (including required courses): 28-30.75 unit



Environmental Science & Technology Advisory Committee

Meeting Minutes

Wednesday March 3, 2021

- **Meeting called to order at 3:02pm**

- Present:

- Balint, Elizabeth – Director of Institutional Effectiveness, Lake Tahoe Community College
- Carr, Kim – Kcarr Consultant and K-12 SWP Pathways Coordinator/North-far North Region, California Community Colleges
- Cowen, Jeff – Board Trustee, LTCC
- Deeds, Brad – Dean of Workforce Development and Instruction, LTCC
- Easler, Sadie – Program Manager, Clean up the Lake
- Goligoski, Amber – Apprenticeship and Work-Based Learning Coordinator, LTCC
- Hoover, Gregory – Water Quality Manager / AIS Management Coordinator, Tahoe Keys Property Owners' Association
- Kibbee, Melissa – District Director - Tahoe Center California Conservation Corps
- Kyllonen, Kelsey – Research Analyst, Institutional Effectiveness LTCC
- Loudon, Elizabeth – Program Coordinator for Outreach and Dual Enrollment, LTCC
- Murphy, Carlie – Forestry Education Grant Manager, LTCC
- Ortiz, Victoria – Community Engagement Manager, Tahoe Regional Planning Agency
- Peterson, Carrie – Regional Director, Agriculture, Water & Environmental Technology, North/Far North Region California Community Colleges
- Rhone, Jamie – Career and Technical Education Program Specialist, LTCC
- Villanueva, Garrett – Trail Program Lead U.S. Forest Service Lake Tahoe Basin Management Unit

- **Welcome and Introductions**

- **Annual Program Review & Updates**

Brad Deeds: Two years ago college pivoted from the Environmental Technology and Sustainability Degrees: Biological Resources, Natural Resources and Sustainability. What originally designed was attractive to students, and hoped to support positive employment outcomes. College discovered it wasn't working. Didn't articulate with the California State University system (CSU). Most folks from related agencies around the Lake Tahoe Basin have at least Bachelor's degrees or master's degrees. Earth and Environmental Science Faculty, Dr. Scott Valentine, created two new degree pathways - **Associate of Art (AA) in Environmental Studies** and **Associate of Science (AS) in Environmental Science**. Were designed to align to requirements of CSU and UC institutions. An Employable Skills Certificate and Certificate of Achievement complement the degrees. LTCC Counselor & Articulation Officer, Pete Dixon, looked at new degrees to ensure they met the requirements of a CSU and articulate to four-year universities.

The **Environmental Science and Technology Employable Skills Certificate** is 13.5 units and the first step along the way:

1. **All courses from the following (8.5):**

EVS 101 Environmental Science (4)

EVS 101L Environmental Science Lab (1)
GEG 134/CIS 135A Introduction to
Geographic Information Systems (3.5)
**2. A minimum of 5 units from the
following:**
BIO 113 Field Methods in Wildlife Ecology
(4)

EVS 106 Environmental Field Methods (2.5)
EVS 110 California Naturalist Program (4.5)
GEG 107 Water Quality Monitoring of
Streams and Lakes (2.5)
GEG 135/CIS 135B Intermediate Geographic
Information Systems (3.5)

The **Environmental Science and Technology Certificate of Achievement** is 28-30.75 units and contains all of the major classes, not including electives or general education:

**REQUIRED COURSES: 28-30.75 units
distributed as follows:**

All courses from the following (5 units):

EVS 101 Environmental Science (4)
EVS 101L Environmental Science Lab (1)

A minimum of 5 units from the following:

CHM 100 Introduction to General Chemistry
(5)
CHM 101 General Chemistry I (5.75)
PHS 102 Survey of Concepts in Chemistry
and Physics (5)

A minimum of 10 units from the following:

EVS 106 Environmental Field Methods (2.5)
EVS 133 Internship Occupational Work
Experience (1-6)
GEG 107 Water Quality Monitoring of
Streams and Lakes (2.5)

GEG 134/CIS 135A Introduction to
Geographic Information Systems (3.5)
GEG 135/CIS 135B Intermediate Geographic
Information Systems (3.5)

**Two courses (not already used above) from
the following (8-10.75 units):**

BIO 101 Principles of Biology I (5)
BIO 149 Ecology (5)
BIO 201 Botany (5)
BIO 212 Zoology (5)
CHM 101 General Chemistry I (5.75)
GEG 101 Physical Geography (5)
GEG 108 Water Resources (4)
GEG 113 Meteorology (4)
GEL 102 Physical Geology (5)
MAT 201 Elementary Statistics (5)
PHS 117 Oceanography (5)
PHY 104 General Physics I (5)

The **AA in Environmental Studies** includes 37-37.75 units in related courses, plus general education units, combined with 22 elective units, to bring the total to 90 quarter units:

A. GENERAL EDUCATION REQUIREMENTS

**B. REQUIRED COURSES: 37- 37.75 units
distributed as follows:**

1. All courses from the following (5 units):

EVS 101 Environmental Science (4)
EVS 101L Environmental Science Lab (1)

2. One course from the following (5 units):

BIO 101 Principles of Biology I (5)
BIO 102 Principles of Biology II (5)
BIO 103 Principles of Biology III (5)
BIO 110 Introduction to Cell and Molecular
Biology (5)
BIO 111 Introduction to Plant and Animal
Biology (5)
BIO 149 Ecology (5)
BIO 201 Botany (5)
BIO 212 Zoology (5)

**3. One course from the following (5-5.75
units):**

CHM 100 Introduction to General Chemistry
(5)
CHM 101 General Chemistry I (5.75)

PHS 102 Survey of Concepts in Chemistry
and Physics (5)

**4. Courses not used above or from the
following (22 units minimum):**

CHM 102 General Chemistry II (5.75)
CHM 103 General Chemistry III (5.75)
**ECO 101 Principles of Economics - Macro
(4)**
ECO 102 Principles of Economics - Micro (4)
EVS 106 Environmental Field Methods (2.5)
EVS 110 California Naturalist Program (4.5)
**EVS 133 Internship Occupational Work
Experience (1-6)**
GEG 101 Physical Geography (5)
GEG 102 Human Geography (4)
GEG 103 World Regional Geography (4)
**GEG 107 Water Quality Monitoring of
Streams and Lakes (2.5)**
GEG 108 Water Resources (4)
GEG 113 Meteorology (4)
**GEG 134/CIS 135A Introduction to
Geographic Information Systems (3.5)**

GEG 135/CIS 135B Intermediate Geographic Information Systems (3.5)
GEL 102 Physical Geology (5)
GEL 103 History of Life and Earth (5)

MAT 118 Calculus for Business and Social Science (5)
MAT 201 Elementary Statistics (5)
PHS 117 Oceanography (5)
C. ELECTIVE UNITS to bring the total to 90.

The **AS in Environmental Science Degree** includes 60.25-63.25 of related coursework and is challenging. Some of the courses show up in the employable skills certificate and all of the science and math courses do double duty for the general education units.

A. GENERAL EDUCATION REQUIREMENTS

B. REQUIRED COURSES: 60.25-63.25 units distributed as follows:

1. All courses from the following (37.25 units):

CHM 101, 102, & 103 (17.25)
EVS 101 Environmental Science (4)
EVS 101L Environmental Science Lab (1)
MAT 105, 106, 107 (15)

2. Select 15-18 units from one of the following disciplines:

BIO 101, 102, & 103 (15)
PHY 104, 105, & 106 (15)
PHY 107, 108, 207 (18)

3. A minimum of 8 units from the following:

ECO 101 Principles of Economics - Macro (4)

ECO 102 Principles of Economics - Micro (4)
EVS 106 Environmental Field Methods (2.5)
EVS 133 Internship Occupational Work Experience (1-6)
GEG 101 Physical Geography (5)
GEG 102 Human Geography (4)
GEG 103 World Regional Geography (4)
GEG 108 Water Resources (4)
GEG 113 Meteorology (4)
GEG 134/CIS 135A Introduction to Geographic Information Systems (3.5)
GEG 135/CIS 135B Intermediate Geographic Information Systems (3.5)
GEL 102 Physical Geology (5)
GEL 103 History of Life and Earth (5)
MAT 201 Elementary Statistics (5)
PHS 117 Oceanography (5)
C. ELECTIVE UNITS to bring the total to 90

● **Feedback from Industry Partners**

- **Garrett Villanueva:** The forest service is changing and moving forward. Foresters are working on skeleton crews, trying to manage millions of acres of land. More work is focused on how to engage & partner with communities. Would like to see more soft skills in these degrees.
- **Amber Goligoski:** We've incorporated "21st Century Skills" through the Internship and Work Experience Programs. A series of online skills modules, each one takes 20 -30 minutes to complete. Is being used throughout the CA Community College System. Focuses on communication, adaptability, and digital fluency and we're putting an emphasis on diversity and equity. Work Experience courses are repeatable, up to a total of 24 units.
- **Carrie Peterson:** Soft skills is the problem that we really have a hard time with at the high school level because they have to be predicated upon hard consequences. You can't just shut the door and lock it because a HS student comes in late. We have more liberties at the community college- level but it is something we are trying to figure out.
- **Garrett Villanueva:** The community colleges and universities are partnering with our conservation corps to offer real-world working opportunities for students wanting to learn those skills.
- **Elizabeth Loudon:** The number one predictor for retention of students is their level of engagement outside of the classroom. The most effective way for students to gain practice is via student or community organizations that allow them to practice what we're talking about here. You could create clubs and opportunities for students that relate directly to their interests. For example, in the field of environmental science, you could have a Geocaching Club. This allows them to hone a necessary relevant skill for the field.

- **Victoria Ortiz:** There's a lot of value in apprenticeships and work-based learning opportunities. I know a couple of the agencies I've worked with in Tahoe can give students a little bit of understanding of the landscape and time to become familiar with the area. This adds a lot of value to a potential applicant.
 - **Amber Goligoski:** Would love to see some type of internship with the Tahoe Regional Planning Agency (TRPA). I'd also like to see a combined internship where students do a month with the TRPA and a month with Tahoe Resource Conservation District (RCD).
 - **Melissa Kibbee:** Likes the field piece of it and encouraging students to get those certifications while at the California Conservation Corps (CCC). After a year in the corps, they offer both Americorps fellowships and scholarships within the agency. They can continue education, while here for a year, getting those soft skills and hands-on experience, working with a lot of our local sponsors. I also value how the college stacked the certificates because folks don't always stay for a full two years and are not always full-time.
 - **Brad Deeds:** I think there will be some overlap with the proposed new Forestry Education Program where students can apply for multiple certificates. This will allow students to be able to make a choice. The new Environmental Sciences/Studies Pathway is going to also connect local high school students and that's what Elizabeth Loudon, Dual-enrollment Coordinator, will help us with. Kim Carr, our K 12 Workforce Pathways Coordinator, is going to help us align a pathway so students at the high school can get some free college credit, which could apply towards multiple certificates and degree pathways.
 - **Kim Carr:** There will be similar overlap of courses with the new Forestry Pathway we're working on. Will build out some specific forestry courses such as Intro to Forestry. Can start specializing and making sure not overbuilding beyond demand. Land managers are really focused on resiliency and restoration, where other parts of the state it's more private lands or timber operators, so very different skill sets. I think that our program can really step in and fill a gap in the state.
 - **Gregory Hoover:** I'd like to see an Aquatic Ecology Program or an analogy or ecology of lakes and streams curriculum.
- **Perkins**
 - Perkins funding helps the Career & Technical Education department provide a Quarterly Textbook Lending Program, which provides textbooks for eligible students who are pursuing a CTE degree or certificate.
 - **Adjournment**
 - The meeting adjourned at 4:30 p.m.

Respectively submitted,
 Melissa Liggett
 Career & Technical Education Technician

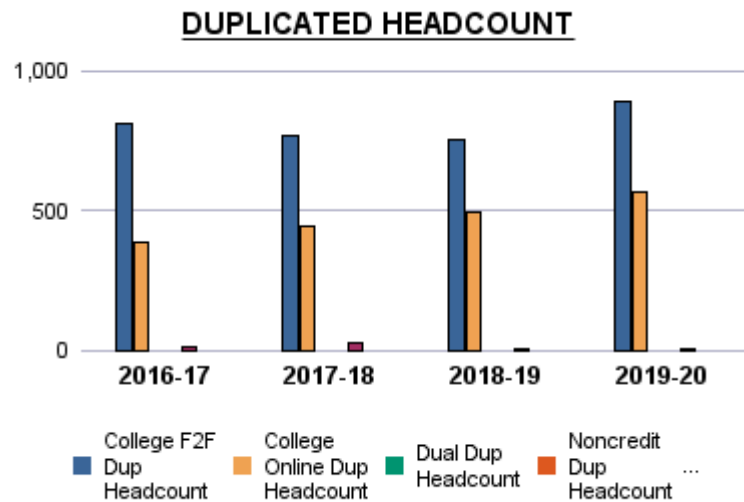
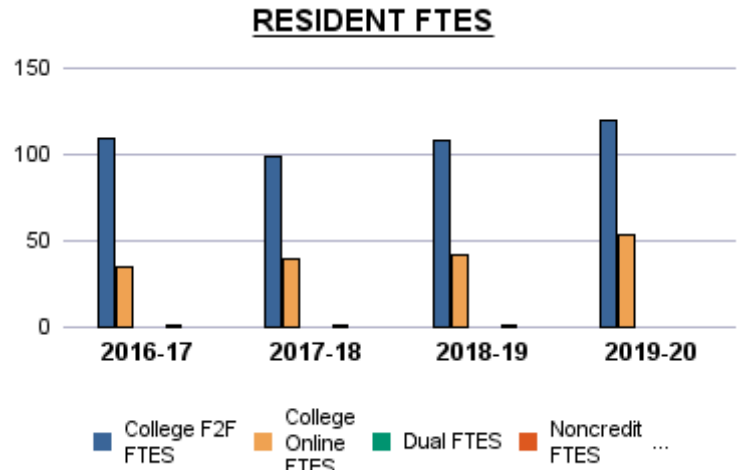
2019-20 ANNUAL PROGRAM REVIEW



Environmental Science & Technology Summary

This report contains data from Academic Year (AY) 2016 to 2019. Information on program size based on full-time equivalent students (FTES), Student Success, and Student Achievement are presented below. The following categories are excluded: CAL FIRE, Culinary Jail, Fire In-Service, IEC, ISP, ISP Work Experience, ISSI, Municipal Fire, and South Bay JPA.

	2016-17	2017-18	2018-19	2019-20	3-Yr Chg	1-Yr Chg
Total Sections	71	78	67	72	1.4%	7.5%
College F2F Sections	48	49	45	48	0.0%	6.7%
College Online Sections	19	24	20	23	21.1%	15.0%
Dual Sections	0	0	0	0	---	---
Work Experience Sections	4	5	2	1	-75.0%	-50.0%
Noncredit Sections	0	0	0	0	---	---
Noncredit CDCP Sections	0	0	0	0	---	---
Total FTES	143.57	137.76	149.66	173.32	20.7%	15.8%
College F2F FTES	108.69	98.78	107.96	119.70	10.1%	10.9%
College Online FTES	34.88	38.98	41.70	53.62	53.7%	28.6%
Dual FTES	0.00	0.00	0.00	0.00	---	---
Work Experience FTES	0.51	0.87	0.20	0.00	-100.0%	-100.0%
Noncredit FTES	0.00	0.00	0.00	0.00	---	---
Noncredit CDCP FTES	0.00	0.00	0.00	0.00	---	---
Total Duplicated Headcount	1,202	1,213	1,254	1,457	21.2%	16.2%
College F2F Dup. Headcount	812	770	758	890	9.6%	17.4%
College Online Dup. Headcount	390	443	496	567	45.4%	14.3%
Dual Dup. Headcount	0	0	0	0	---	---
Work Experience Dup. Headcount	15	26	3	1	-93.3%	-66.7%
Noncredit Dup. Headcount	0	0	0	0	---	---
Noncredit CDCP Dup. Headcount	0	0	0	0	---	---



2019-20 ANNUAL PROGRAM REVIEW

Demographics: College F2F and College Online

	2016-17		2017-18		2018-19		2019-20	
	N	%	N	%	N	%	N	%
Male	307	43.9%	298	40.6%	318	41.3%	358	41.0%
Female	389	55.7%	432	58.9%	449	58.3%	515	58.9%
Unknown	3	0.4%	4	0.5%	3	0.4%	1	0.1%

	2016-17		2017-18		2018-19		2019-20	
	N	%	N	%	N	%	N	%
African American	15	2.1%	19	2.6%	13	1.7%	26	3.0%
Asian	31	4.4%	46	6.3%	60	7.8%	69	7.9%
Hispanic	205	29.3%	214	29.2%	230	29.9%	283	32.4%
Native Amer/Alaska Native	5	0.7%	4	0.5%	5	0.6%	6	0.7%
Pacific Islander	2	0.3%	2	0.3%	4	0.5%	1	0.1%
White Non-Hispanic	387	55.4%	398	54.2%	401	52.1%	394	45.1%
Two or more races	44	6.3%	43	5.9%	35	4.5%	49	5.6%
Other	2	0.3%	2	0.3%	0	0.0%	1	0.1%
Unknown	8	1.1%	6	0.8%	22	2.9%	45	5.1%

	2016-17		2017-18		2018-19		2019-20	
	N	%	N	%	N	%	N	%
Age < 25	464	66.4%	476	64.9%	505	65.6%	530	60.6%
Age 25 - 49	222	31.8%	237	32.3%	244	31.7%	324	37.1%
Age 50 +	13	1.9%	21	2.9%	21	2.7%	20	2.3%
Age Unknown	0	0.0%	0	0.0%	0	0.0%	0	0.0%

	2016-17	2017-18	2018-19	2019-20
Median Age	22	22	22	22
Youngest	14	14	15	15
Oldest	67	88	73	74

2019-20 ANNUAL PROGRAM REVIEW

Demographics: Dual

	N	%
	0	0.0%

	N	%
	0	0.0%

Median Age	0
Youngest	
Oldest	

2019-20 ANNUAL PROGRAM REVIEW

Demographics: Work Experience

	2016-17		2017-18		2018-19		2019-20	
	N	%	N	%	N	%	N	%
Male	6	42.9%	6	24.0%	0	0.0%	1	100.0%
Female	8	57.1%	19	76.0%	3	100.0%	0	0.0%

	2016-17		2017-18		2018-19		2019-20	
	N	%	N	%	N	%	N	%
African American	0	0.0%	0	0.0%	0	0.0%	1	100.0%
Hispanic	2	14.3%	5	20.0%	3	100.0%	0	0.0%
Native Amer/Alaska Native	1	7.1%	0	0.0%	0	0.0%	0	0.0%
White Non-Hispanic	9	64.3%	17	68.0%	0	0.0%	0	0.0%
Two or more races	2	14.3%	3	12.0%	0	0.0%	0	0.0%

	2016-17	2017-18	2018-19	2019-20
Median Age	23	16	32	19
Youngest	14	13	23	19
Oldest	47	36	50	19

2019-20 ANNUAL PROGRAM REVIEW

Demographics: Noncredit

	N	%
	0	0.0%

	N	%
	0	0.0%

Median Age	0
Youngest	
Oldest	

2019-20 ANNUAL PROGRAM REVIEW

Demographics: Noncredit CDCP

	N	%
	0	0.0%

	N	%
	0	0.0%

Median Age	0
Youngest	
Oldest	

2019-20 ANNUAL PROGRAM REVIEW

Course Success: College F2F and College Online

	2016-17		2017-18		2018-19		2019-20	
	Enrollment	Success	Enrollment	Success	Enrollment	Success	Enrollment	Success
Male	500	85.2%	465	81.3%	488	81.8%	550	84.9%
Female	559	87.3%	596	85.9%	648	84.6%	726	86.2%
Unknown	6	50.0%	6	83.3%	3	100.0%	1	100.0%

	2016-17		2017-18		2018-19		2019-20	
	Enrollment	Success	Enrollment	Success	Enrollment	Success	Enrollment	Success
African American	14	64.3%	20	55.0%	14	78.6%	31	74.2%
Asian	42	83.3%	68	85.3%	87	83.9%	103	86.4%
Hispanic	273	79.9%	291	77.0%	349	78.2%	425	82.4%
Native Amer/Alaska Native	5	100.0%	7	100.0%	7	85.7%	9	77.8%
Pacific Islander	4	50.0%	2	0.0%	5	100.0%	1	100.0%
White Non-Hispanic	631	89.2%	598	88.1%	608	86.5%	592	87.7%
Two or more races	82	90.2%	66	83.3%	41	78.0%	64	89.1%
Other	3	100.0%	4	50.0%	0	0.0%	2	100.0%
Unknown	11	72.7%	11	100.0%	28	85.7%	50	92.0%

	2016-17		2017-18		2018-19		2019-20	
	Enrollment	Success	Enrollment	Success	Enrollment	Success	Enrollment	Success
Age < 25	715	84.9%	715	82.4%	756	82.4%	825	85.5%
Age 25 - 49	338	88.8%	335	87.5%	360	85.6%	428	86.4%
Age 50 +	12	83.3%	17	76.5%	23	82.6%	24	79.2%

	2016-17		2017-18		2018-19		2019-20	
	Enrollment	Success	Enrollment	Success	Enrollment	Success	Enrollment	Success
College F2F	736	90.5%	690	86.5%	705	85.7%	811	87.2%
Online Education	329	76.3%	377	79.0%	434	79.7%	466	83.0%

NOTE: Enrollment = duplicated headcount, excluding audits and drops w/ no record.

2019-20 ANNUAL PROGRAM REVIEW

Course Success: Dual

	Enrollment	Success
	0	0.0%

	Enrollment	Success
	0	0.0%

NOTE: Enrollment = duplicated headcount, excluding audits and drops w/ no record.

2019-20 ANNUAL PROGRAM REVIEW

Course Success: Work Experience

	2016-17		2017-18		2018-19		2019-20	
	Enrollment	Success	Enrollment	Success	Enrollment	Success	Enrollment	Success
Male	6	100.0%	6	100.0%	0	0.0%	1	100.0%
Female	9	88.9%	20	95.0%	3	100.0%	0	0.0%

	2016-17		2017-18		2018-19		2019-20	
	Enrollment	Success	Enrollment	Success	Enrollment	Success	Enrollment	Success
African American	0	0.0%	0	0.0%	0	0.0%	1	100.0%
Hispanic	2	50.0%	5	80.0%	3	100.0%	0	0.0%
Native Amer/Alaska Native	1	100.0%	0	0.0%	0	0.0%	0	0.0%
White Non-Hispanic	9	100.0%	18	100.0%	0	0.0%	0	0.0%
Two or more races	3	100.0%	3	100.0%	0	0.0%	0	0.0%

NOTE: Enrollment = duplicated headcount, excluding audits and drops w/ no record.

2019-20 ANNUAL PROGRAM REVIEW

Course Success: Noncredit

	Enrollment	Success
	0	0.0%

	Enrollment	Success
	0	0.0%

NOTE: Enrollment = duplicated headcount, excluding audits and drops w/ no record.

2019-20 ANNUAL PROGRAM REVIEW

Course Success: Noncredit CDCP

	Enrollment	Success
	0	0.0%

	Enrollment	Success
	0	0.0%

NOTE: Enrollment = duplicated headcount, excluding audits and drops w/ no record.

2019-20 ANNUAL PROGRAM REVIEW

2019-20 COURSE STATISTICS

PRODUCTIVITY* (2019-20):	354.19
% FULL TIME INSTRUCTORS** (2019-20):	68%
% ADJUNCT INSTRUCTORS** (2019-20):	32%

COLLEGE F2F	Sections Offered	Cancel %	FT % **	Adjunct % **	Avg Census Enroll	Avg End of Term Enroll	Retention % ***	Success % ***	FTES	WSCH	FTEF	Productivity
BIO-101-01 Principles of Biology I	1	0.0%	100%	0%	19.0	16.0	84.2%	100.0%	2.65	133	0.15	304.00
BIO-101-02 Principles of Biology I	1	0.0%	100%	0%	9.0	8.0	88.9%	87.5%	1.09	63	0.06	336.00
BIO-101-03 Principles of Biology I	1	100.0%					0.0%			0		---
BIO-102-01 Principles of Biology II	1	0.0%	100%	0%	17.0	16.0	94.1%	100.0%	2.33	119	0.15	272.00
BIO-102-02 Principles of Biology II	1	100.0%					0.0%			0		---
BIO-103-01 Principles of Biology III	1	0.0%	0%	100%	17.0	17.0	100.0%	100.0%	2.33	119	0.15	272.00
BIO-103-02 Principles of Biology III	1	100.0%					0.0%			0		---
BIO-110-01 Intro Cell & Molecular Bio	4	25.0%	19%	81%	23.7	22.7	95.8%	82.4%	10.88	503	0.44	383.47
BIO-110-02 Intro Cell & Molecular Bio	1	100.0%					0.0%			0		---
BIO-149-01 Ecology	1	0.0%	100%	0%	8.0	7.0	87.5%	71.4%	1.14	58	0.15	133.49
BIO-201-01 Botany	1	0.0%	100%	0%	13.0	12.0	92.3%	100.0%	1.95	95	0.15	216.91
BIO-212-01 Zoology	1	0.0%	100%	0%	16.0	13.0	81.3%	84.6%	2.43	117	0.15	266.97
CHM-100-01 Intro to General Chemistry	1	0.0%	100%	0%	21.0	19.0	90.5%	94.7%	2.92	153	0.15	350.40
CHM-100-02 Intro to General Chemistry	1	0.0%	100%	0%	24.0	21.0	87.5%	85.7%	3.42	168	0.06	896.00
CHM-100-03 Intro to General Chemistry	1	0.0%	100%	0%	18.0	13.0	72.2%	69.2%	2.65	126	0.06	672.00
CHM-101-01 General Chemistry I	1	0.0%	100%	0%	15.0	15.0	100.0%	73.3%	2.89	150	0.19	259.46
CHM-101-02 General Chemistry I	1	0.0%	100%	0%	27.0	26.0	96.3%	76.9%	5.64	254	0.11	773.49
CHM-102-01 General Chemistry II	1	0.0%	57%	43%	8.0	8.0	100.0%	75.0%	1.56	80	0.19	138.38
CHM-102-02 General Chemistry II	1	0.0%	0%	100%	18.0	17.0	94.4%	94.1%	3.92	176	0.11	537.60
CHM-103-01 General Chemistry III	1	0.0%	0%	100%	23.0	22.0	95.7%	100.0%	4.89	230	0.19	397.84
CHM-103-02 General Chemistry III	1	100.0%					0.0%			0		---
CIS-135A-01 Introduction to GIS	1	0.0%	0%	100%	8.0	8.0	100.0%	100.0%	0.71	32	0.08	128.00
CIS-135B-01 Intermediate GIS	1	0.0%			3.0	3.0	100.0%	100.0%	0.27	12	0.00	---
ECO-101-01 Principles of Economics(macro)	1	0.0%	0%	100%	11.0	10.0	90.9%	100.0%	0.71	44	0.08	176.00
ECO-102-01 Principles of Economics(micro)	1	0.0%	0%	100%	18.0	17.0	94.4%	88.2%	1.16	72	0.08	288.00
EVS-110-01 California Naturalist Program	2	50.0%	100%	0%	33.0	30.0	90.9%	83.3%	3.34	173	0.11	504.00

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GEG-101-01	Physical Geography	1	0.0%	100%	0%	17.0	17.0	100.0%	88.2%	2.30	126	0.15	287.54
GEG-103-01	World Regional Geography	1	0.0%	100%	0%	14.0	13.0	92.9%	100.0%	0.98	56	0.08	224.00
GEG-107-01	Water Quality Monitoring	1	100.0%					0.0%			0		---
GEG-134-01	Intro Geographic Info Systems	1	0.0%			12.0	12.0	100.0%	91.7%	1.07	48	0.00	---
GEG-135-01	Int Geographic Info Systems	1	0.0%	0%	100%	3.0	2.0	66.7%	100.0%	0.27	12	0.08	48.00
GEL-102-01	Physical Geology	1	0.0%	100%	0%	29.0	27.0	93.1%	88.9%	3.99	226	0.15	517.03
GEL-103-01	History of Earth and Its Life	1	0.0%	100%	0%	31.0	29.0	93.5%	89.7%	4.77	229	0.15	524.34
MAT-105-01	Calculus/Analytic Geo (Pt I)	1	0.0%	100%	0%	32.0	29.0	90.6%	75.9%	3.36	173	0.10	552.96
MAT-106-01	Calculus/Analytic Geo (Pt II)	1	0.0%	100%	0%	24.0	21.0	87.5%	95.2%	2.79	137	0.10	437.76
MAT-107-01	Calculus/AnalyticGeo (Pt III)	1	0.0%	100%	0%	19.0	18.0	94.7%	88.9%	2.04	103	0.10	328.32
MAT-118-01	Calculus- Bsn/Soc Sciences	1	0.0%	100%	0%	21.0	14.0	66.7%	85.7%	2.28	113	0.10	362.88
MAT-201-01	Elementary Statistics	3	0.0%	100%	0%	26.3	25.0	94.9%	81.3%	9.48	437	0.31	466.56
MAT-201-02	Elementary Statistics	3	0.0%	100%	0%	27.3	24.7	90.2%	86.5%	9.12	443	0.31	472.32
MAT-201-03	Elementary Statistics	3	33.3%	100%	0%	21.5	15.5	72.1%	64.5%	4.56	232	0.21	371.52
PHS-117-01	Oceanography	1	0.0%	100%	0%	30.0	29.0	96.7%	93.1%	4.61	222	0.15	507.43
PHY-104-01	General Physics I	1	0.0%	100%	0%	8.0	8.0	100.0%	100.0%	1.35	61	0.15	138.97
PHY-105-01	General Physics II	1	0.0%	100%	0%	8.0	8.0	100.0%	100.0%	1.39	62	0.15	142.63
PHY-106-01	General Physics III	1	0.0%	100%	0%	8.0	8.0	100.0%	87.5%	1.35	61	0.15	138.97
PHY-107-01	General Physics (Calculus)	1	0.0%	100%	0%	14.0	14.0	100.0%	92.9%	2.31	112	0.17	224.00
PHY-108-01	Waves, Thermodynamics/Light	1	0.0%	100%	0%	10.0	10.0	100.0%	100.0%	1.76	88	0.17	176.00
PHY-207-01	Electricity and Magnetism	1	0.0%	100%	0%	8.0	8.0	100.0%	87.5%	1.07	64	0.17	128.00
Total		57	15.8%	79%	21%	18.5	16.9	91.5%	87.0%	119.70	5,884	5.74	

COLLEGE ONLINE		Sections Offered	Cancel %	FT % **	Adjunct % **	Avg Census Enroll	Avg End of Term Enroll	Retention % ***	Success % ***	FTES	WSCH	FTEF	Productivity
BIO-111-01	Intro Plant & Animal Biology	1	0.0%	0%	100%	29.0	25.0	86.2%	92.0%	4.20	203	0.15	464.00
ECO-101-01	Principles of Economics(macro)	3	0.0%	100%	0%	28.3	26.0	91.8%	88.5%	6.14	340	0.25	453.34
ECO-102-01	Principles of Economics(micro)	3	0.0%	0%	100%	30.0	24.3	81.1%	95.9%	6.76	360	0.25	480.00
GEG-102-01	Human Geography	2	0.0%	0%	100%	13.5	13.0	96.3%	88.5%	2.05	108	0.17	216.00
GEG-113-01	Meteorology	1	0.0%	100%	0%	29.0	27.0	93.1%	88.9%	2.49	116	0.08	464.00
GEL-103-01	History of Earth and Its Life	2	0.0%	0%	100%	30.5	27.0	88.5%	75.9%	7.31	427	0.29	488.00
MAT-201-01	Elementary Statistics	1	0.0%			23.0	15.0	65.2%	86.7%	2.22	115	0.10	368.00
MAT-201-02	Elementary Statistics	1	0.0%			29.0	22.0	75.9%	86.4%	2.78	145	0.10	464.00
MAT-201-04	Elementary Statistics	3	0.0%	67%	33%	21.0	16.7	79.4%	70.0%	6.67	315	0.31	336.00

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COLLEGE ONLINE		Sections Offered	Cancel %	FT % **	Adjunct % **	Avg Census Enroll	Avg End of Term Enroll	Retention % ***	Success % ***	FTES	WSCH	FTEF	Productivity
MAT-201-05	Elementary Statistics	3	0.0%	0%	100%	24.3	19.0	78.1%	71.9%	7.67	365	0.31	389.34
MAT-201-06	Elementary Statistics	3	33.3%	50%	50%	20.5	13.5	65.9%	77.8%	4.00	205	0.21	328.00
MAT-201-07	Elementary Statistics	1	0.0%	0%	100%	17.0	12.0	70.6%	66.7%	1.33	85	0.10	272.00
Total		24	4.2%	33%	67%	24.7	20.3	82.2%	83.0%	53.62	2,784	2.33	

Dual		Sections Offered	Cancel %	FT % **	Adjunct % **	Avg Census Enroll	Avg End of Term Enroll	Retention % ***	Success % ***	FTES	WSCH	FTEF	Productivity
			---					0.0%					---
Total			---					0.0%					

WORK EXPERIENCE		Sections Offered	Cancel %	FT % **	Adjunct % **	Avg Census Enroll	Avg End of Term Enroll	Retention % ***	Success % ***	FTES	WSCH	FTEF	Productivity
EVS-133-01	Intern-Occupational Work Exp.	4	75.0%			1.0	1.0	100.0%	100.0%	0.00	0	0.00	---
EVS-133-02	Intern-Occupational Work Exp.	3	100.0%					0.0%			0		---
Total		7	85.7%			1.0	1.0	100.0%	100.0%	0.00	0	0.00	

Noncredit		Sections Offered	Cancel %	FT % **	Adjunct % **	Avg Census Enroll	Avg End of Term Enroll	Retention % ***	Success % ***	FTES	WSCH	FTEF	Productivity
			---					0.0%					---
Total			---					0.0%					

Noncredit CDCP		Sections Offered	Cancel %	FT % **	Adjunct % **	Avg Census Enroll	Avg End of Term Enroll	Retention % ***	Success % ***	FTES	WSCH	FTEF	Productivity
			---					0.0%					---
Total			---					0.0%					

* Excludes Summer and cancelled sections

** Excludes summer assignments. Based on instructional workload and the percentage of workload assigned under full-time contracts versus adjunct contracts

*** Withdrawal and success statistics exclude noncredit classes.