2017-2018
Comprehensive Program Review
Sciences (Life and Physical)

2017-2018

Life Sciences
(Biology, Marine Science, Ecology, Health Science Certificate, Biotechnology Certificate, ADT Biology, Science and Math AofE)

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Executive Summary

The Biology Life Sciences Department has experienced tremendous growth in the past five years. We have added two new laboratories at the Newport Beach Center dedicated to the Biological Sciences, namely Human Anatomy (Bio 220-up to 8 new sections each fall and spring with 2 each summer), Human Physiology (4 new sections each fall and spring and 2 each summer), Microbiology (Bio 210 with its first class at Newport in spring 2017, two classes this fall and spring, and three planned for fall 2018), Diversity of Organisms (offered each fall and spring semester starting in fall 2015), Cell and Molecular Biology (offered each fall and spring semester starting in fall 2015), Marine Science lab (first offered again in spring 2017), and Biology 100 lab (up to twice a semester and in the summer especially for the Early College High School students). We now have four laboratories over three campuses offering over 12 different courses in four modalities: onsite, online, hybrid, and telecourses. We have five full time faculty members and for spring 2018, will likely have 18 part time faculty members.

Our student population falls into three categories: non-majors biology, majors biology, and health science students. The majority of our online students are non-majors biology and take Bio 100, Bio 100L, and to be offered for the first time in the spring of 2018 Bio 100C, a combination course that will make it easier for the student wishing to complete their science/lab transfer combination in life sciences. The majority of our onsite students are in the health sciences and are required to take combinations of Human Anatomy (Bio 220), Human Physiology (Bio 225), and Microbiology (Bio 210). They are also very interested in Genetics (Bio 283), Molecular Biology (Bio 282), and Biochemistry (Bio 281). These last three courses are being offered for the first time this school year (2017-2018). The majors biology student is our smallest population at present. We are awaiting approval of the ADT in Biology at the State level, but it is dependent on the C-ID approval of the chemistry courses which were recently submitted. Once the ADT in biology is approved at the State level, we hope to see an increase in the number of majors biology students.

Our Program Review shows the growth in our department and our desire to be one of the best programs around. We have created exciting projects from STEM academies, to cadaver and biotechnology labs, to student engagement through work study programs and quiz bowls. We hope for your continued support in developing these opportunities for our students.

Current updates on activities/projects

Please see also the section on Progress on Initiatives: Completed, Ongoing, Begun in the course of this year.

We have increased our curriculum offerings, creating and adding Bio 180 Cell and Molecular Biology, Bio 185 Diversity of Organisms, Bio 102 Introduction to the Concepts of Anatomy and Physiology, Bio 281 Biochemistry, and Bio 282 Molecular Biology. We have brought back Marine Science and created a Canvas class. We have created model classes for the Bio 100, Bio 100L, and Bio 100 C. We will offer Ecology 100 for the first time and online in spring 2018.

The vast majority of our onsite instructors and all our online instructors have completed Canvas training.

We presented the second Health Science Triathlon College Quiz Bowl in spring 2017, with 54 competitors answering questions in Anatomy and Physiology, Chemistry, and Microbiology.

We published *Laboratory Exercises in Human Physiology* for Coastline Physiology Labs and published the 5th edition of *Biology: Independent Study Manual.*

We started Work Study programs with students and engaged them in research at Bolsa Chica.

We will have our first Study Abroad this summer in Ecology and in Costa Rica.

We applied for a STEM grant, Bright Ideas grants, PDI, Coast Foundation grant.

With full and part time faculty, we established goals in creating a new way to measure SLOs.

We supported one "extern" for Girls Inc. internship program in summer 2017

Section 1: Program Planning:

Mission Statement

The Biology Department prepares students for careers in STEM and healthcare.

Overview

The Biology Life Sciences Department encompasses two certificates and two degrees as well as offering each semester up to 12 different courses in Biology, many with labs, a course in Marine Science, and in spring 2018, a course in Ecology. These courses are delivered in different modalities including onsite, online, hybrid, and telecourse.

CERTIFICATES and DEGREES

There are two certificates and two degrees under the Life Sciences (Biology) Department.

HEALTH SCIENCE CERTIFICATE OF ACHIEVEMENT.

The Health Science Certificate of Achievement was first awarded in 2014-2015 with a total of 23 recipients. In 2016-2017, 17 certificates were awarded. The certificate was revised in 2016 to include either Chem 110 (pre-nursing chemistry class) or Chem 180/180L (chemistry for many other pre-health care majors). This change will make the degree applicable for many more students. In 2016-2017, 24 certificates were awarded.

Many of our Health Science students have undergraduate degrees and therefore come to Coastline for the specific courses required for their graduate level education. The Health Science Certificate allows Coastline and therefore the State of California to recognize this important role we play in bringing necessary education to those pursuing advance degrees.

CORE COURSES

BIOL C210	General Microbiology	5.0
BIOL C220	Human Anatomy	5.0
BIOL C225	Human Physiology	4.0
CHEM C110	Introduction to Chemistry	5.0
	or	
CHEM C180	General Chemistry A	4.0
	and	
CHEM C180L	General Chemistry A Lab	1.0
TOTAL UNITS		19.0

BIOTECHNOLOGY CERTIFICATE

The Biotechnology Certificate has not been offered since at least 2010. During Curriculum Committee this spring, the Biology Department felt that this certificate should be suspended as there was no plan to offer it in the near future, yet it remains in the College Catalog. A request was made by the Dean of CTE to keep the certificate pending further study of its feasibility

To offer the Biotechnology, the following must occur:

1. The Certificate must be updated to current technology and courses

2. Laboratory space must be developed (Could potentially use the microbiology lab; may need fitted with laminar flow)

3. Equipment must be purchased

4. Adequate number of Instructional Associates must be in place. Of note, Instructional Associates may also be able to teach some of the technical components of these classes under the auspice of faculty.

ADT BIOLOGY

The ADT in Biology is pending State approval. It is awaiting the approval of the C-IDs in Chemistry which were submitted to the State in Spring 2017.

Core Courses
All courses must be completed with a grade of "C" or better.
Units
BIOL C180 Cell and Molecular Biology 4.0
BIOL C185 Diversity of Organisms 5.0
CHEM C180 General Chemistry A 4.0
and
CHEM C180L General Chemistry A Lab 1.0

CHEM C185 General Chemistry B 4.0
and
CHEM C185L General Chemistry B Lab 1.0
MATH C180 Calculus 1 5.0
MATH C185 Calculus 2 5.0
PHYS C120 Algebra Based Physics: Mechanics 4.0
and
PHYS C125 Algebra Based Physics: Elec/Mag 4.0
or
PHYS C185 Calculus Based Physics: Mechanics 4.0
and
PHYS C280 Calculus Based Physics: Electricity and Magnetism 4.0
Subtotal 37.0
Total Units 37

SCIENCE AND MATH AREA OF EMPHASIS

The Science and Math Area of Emphasis remains a popular degree. In Curricunet, this degree is listed under the Math department. This degree requires a major overhaul between three departments: Life Sciences (Biology), Physical Sciences, and Math. Degrees awarded:

2013-14	111
2014-15	123
2015-16	148

Select at least 18 units from the following courses. At least one course should be a science course and at least one should be a math course. All courses must be completed with a grade of "C" or better

ANTH C185	Physical Anthropology	3.0
ASTR C100	Introduction to Astronomy	3.0
ASTR C100L	Astronomy Laboratory	1.0
ASTR C102	Stellar Astronomy	3.0
ASTR C103	Cosmology	3.0
ASTR C104	Tools of Astronomy	3.0
BIOL C100	Introduction to Biology	3.0
BIOL C120	Biology of Aging	3.0
BIOL C210	General Microbiology	5.0
BIOL C220	Human Anatomy	5.0
BIOL C225	Human Physiology	4.0
BIOL C283	Genetics	4.0
CHEM C100	Principles of Chemistry	3.0
CHEM C105	Chemistry Explorations for Teachers	2.0
CHEM C110	Introduction to Chemistry	5.0
CHEM C130	Preparation for General Chemistry	4.0

CHEM C180	General Chemistry A	4.0
CHEM C180L	General Chemistry A Lab	1.0

CHEM C185	General Chemistry B	4.0
CHEM C185L	General Chemistry B Lab	1.0
CHEM C220	Organic Chemistry A	3.0
CHEM C220L	Organic Chemistry A Lab	2.0
CHEM C225	Organic Chemistry B	3.0
CHEM C225L	Organic Chemistry B Lab	2.0
ECOL C100	Human Ecology	3.0
GEOL C105	General Geology	3.0
GEOL C105L	Geology Lab	1.0
GEOL C115	California Geology	3.0
MRSC C100	Introduction to Marine Science	3.0
MRSC C100L	Marine Sciences Lab	1.0
MRSC C105	Marine Biology	4.0
MATH C100	Liberal Arts Mathematics	3.0
MATH C103	Statistics for Elementary Teachers	3.0
MATH C104	Mathematics for Elementary Teachers	3.0
MATH C106	Geometry for Elementary Teachers	3.0
MATH C115	College Algebra	4.0
MATH C120	Trigonometry	3.0
MATH C140	Business Calculus	4.0
MATH C150	Finite Mathematics with Applications	4.0
MATH C160	Introduction to Statistics	4.0
MATH C170	Precalculus	5.0
MATH C180	Calculus 1	5.0
MATH C185	Calculus 2	5.0
MATH C280	Calculus 3	5.0
MATH C285	Introduction to Linear Algebra and Differential Equations	5.0
PHYS C110	Conceptual Physics	3.0
PHYS C110L	Conceptual Physics Lab	1.0
PHYS C120	Algebra Based Physics: Mechanics	4.0
PHYS C125	Algebra Based Physics: Elec/Mag	4.0
PHYS C185	Calculus Based Physics: Mechanics	4.0
PHYS C280	Calculus Based Physics: Electricity and Magnetism	4.0
PHYS C285	Calculus Based Physics: Modern	4.0
Subtotal		**18.0**

Internal Analysis: Biology

ENROLLMENT AND FTES:

The number of enrollments in Biology courses in 2015-2016 showed a substantial increase (>= 10.0%) from 2014-2015 and a slight increase (1.0% to 4.9%) in comparison with the number of enrollments in 2013-2014.

The FTES in Biology credit courses in 2015-2016 showed a substantial increase (>= 10.0%) from 2014-2015 and a substantial increase (>= 10.0%) in with in comparison with FTES in 2013-2014.

EFFICIENCY (NUMBER OF SECTIONS, FILL RATE, FTEF/30, WSCH/FTEF):

The number of sections in Biology courses in 2015-2016 showed a substantial increase (>= 10.0%) from 2014-2015 and a substantial increase (>= 10.0%) in comparison with the number of sections in 2013-2014.

The fill rate in Biology courses in 2015-2016 showed minimal to no difference from 2014-2015 and a slight decrease (-1.0% to -4.9%) in comparison with the fill rate in 2013-2014.

The FTEF/30 ratio in Biology courses in 2015-2016 showed a substantial increase (>= 10.0%) from 2014-2015 and a substantial increase (>= 10.0%) in comparison with the FTEF/30 ratio in 2013-2014.

The WSCH/FTEF ratio in Biology courses in 2015-2016 showed a slight decrease (-1.0% to -4.9%) from 2014-2015 and a moderate decrease (-5.0% to -9.9%) in comparison with the WSCH/FTEF ratio in 2013-2014.

COURSE SUCCESS RATE:

The course success rate in Biology courses in 2015-2016 showed minimal to no difference from 2014-2015 and a slight increase (1.0% to 4.9%) in comparison with the course success rate in 2013-2014. The course success rate from 2015-2016 showed a moderately higher rate (5.0% to 9.9%) than the college success average* (*66.6%*) and showed a substantially higher rate (>= 10.0%) than the institutional-set standard* (*56.6%*) for credit course success.

TERM RETENTION RATE:

The term retention rate in Biology courses in 2015-2016 showed minimal to no difference from 2014-2015 and minimal to no difference in comparison with the term retention rate in 2013-2014. The term retention rate from 2015-2016 showed a slightly higher rate (1.0% to 4.9%) than the college retention average* (*83.3%*) and showed a substantially higher rate (>= 10.0%) than the institutional-set standard* term retention (*70.8%*) for credit courses.

AWARDS (DEGREES AND CERTIFICATES):

The number of degrees in Biology in 2015-2016 showed no previous data from 2014-2015 and showed no previous data in comparison with the number of degrees awarded in 2013-2014.

The number of certificates in Biology in 2015-2016 showed no previous data from 2014-2015 and showed no previous data in comparison with the number of certificates awarded in 2013-2014.

MODALITY:

In 2015-2016 none (0%) of the Biology courses were offered as cable courses, while none (0%) of the courses were offered in correspondence, less than a quarter (1% to 24%) of the courses offered were hybrid, close to half (25% to 50%) of the courses offered were online, none (0%) of the courses offered were self-paced, less than a quarter (1% to 24%) of the courses offered were telecourse, and close to half (25% to 50%) of the courses were offered in traditional in-person setting.

GENDER

In 2015-16 there **was NOT a disproportional impact** in **Biology** course success rates for *female students*; and there **was NOT a disproportional impact** in **Biology** course success rates for *male students*.

AGE GROUPS

In 2015-2016 there **was NOT a disproportional impact** in **Biology** course success rates for students *less than 20 years old*; there **was NOT a disproportional impact** in **Biology** course success rates for students *20 to 24 years old*; there **was NOT a disproportional impact** in **Biology** course success rates for students *25 to 29 years old*; there **was NOT a disproportional impact** in **Biology** course success rates for students *30 to 34 years old*; there **was NOT a disproportional impact** in **Biology** course success rates for students *35 to 39 years old*; there **was NOT a disproportional impact** in **Biology** course success rates for students *40 to 49 years old*; there **was NOT a disproportional impact** in **Biology** course success rates for students *50+ years old*.

RACE/ETHNICITY

In 2015-2016 there **was a disproportional impact** in **Biology** course success rates for *African American* students; there **was NOT a disproportional impact** in **Biology** course success rates for *American Indian* students; there **was NOT a disproportional impact** in **Biology** course success rates for *Asian/Pacific Islander* students; there **was NOT a disproportional impact** in **Biology** course success rates for *Hispanic/Latino* students; there **was NOT a disproportional impact** in **Biology** course success rates for *White/Non-Hispanic* students; there **was NOT a disproportional impact** in **Biology** course success rates for *Multi-race* students; there **was NOT a disproportional impact** in **Biology** course success rates for students who have *declined to state their race/ethnic identity*.

> *Note: Disproportional Impact is calculated via the Proportionality Index Method with an 80% threshold for negative impact. This method is a measure of representational equity of each subgroup to its initial proportionality at the beginning of the term. Proportionality Index Method compares the demographic characteristics of those who successfully completed the course to the demographics characteristics of the same group that enrolled in the course at the beginning of the term. Proportions of less than 80% are flagged as experiencing disproportional impact.*

Implications of Change

I. Biology 100/ 100L/ 100C: Biology for the Non-Biology major.

Over the past five years the trend is away from onsite classes and towards online classes. The option of Bio 100C (the Bio 100 lecture and Bio 100L) was added to make selections easier for students who would like to complete the lecture and lab life science credits together. This option is currently offered in the Military/Contract Ed and will be offered for the first time this spring 2018.

The trend towards online non-biology majors classes continues with the Marine Science (MRSC 100, now also Bio 103) and Ecology 100 (soon to be also Bio 106). This will allow the non-biology majors the online option of two additional online courses for life science credit transfer. Marine Science 100 online was offered for the first time in spring 2017 and Ecology will be offered for the first time in memory this Spring 2018. We have Dr. Tanya Murray, who was hired 3 years ago to help develop our Marine Science and Diversity of Organisms program, to thank for developing the online model courses for Bio 100, Bio 100l, Bio 100C, and the MRSC 100 and to be offered ECOL 100 online courses.
The "efficiency" and number of these online courses helps support the necessary Biology classes that require an onsite lab in order to be eligible for articulation.

II. Biology Major

The Biology Majors courses Cell and Molecular Biology and Diversity of Organisms were offered for the first time in fall of 2015. Dr. Murray spearheads the Diversity of Organisms, and Dr. Steven Fauce, our hire two years ago tackles Cell and Molecular Biology. These are the two biology courses required for the ADT in

Biology. Also required is two semesters of General Chemistry and two semesters of Physics. We are awaiting the State's approval of the C-IDs for chemistry for the ADT to be approved at the state level. Currently, both courses are offered each semester at the Newport Beach Campus. Cell and Molecular biology was offered in the summer of 2017 at the Garden Grove campus with great success. When the C-IDs for Chemistry are approved (they were submitted by the Chemistry Department in spring 2017), then the ADT for Biology can be resubmitted. Dr. Murray is active in promoting the biology program through her Work Study program that had its first group of 5 students this summer 2017.

III. Health Science Certificate.

The Health Science Certificate was offered for the first time in 2014. This certificate was updated this past year to include the option of Chem 180/180L instead of Chem 110 so that it would apply to the pre-nursing students (Chem 110) as well as the other pre-health care students (physician assistant, physical therapy, pre-med, pre-dent).

The current certificates awarded are below:

CERTS	2012-13	2013-14	2014-15	2015-16	2016-17
Health Science			23	17	24

The Health Science Triathlon, an event celebrating the health science student, premiered on Friday, May 9, 2014 with 64 students participating in teams of 4 in a Quiz Bowl covering the topics of Anatomy, Physiology, and Microbiology. This event was made possible through a Bright Ideas Grant and the help of Bob Nash and staff.

On Friday, May 5th, again with the help of a Bright Ideas grant, Bob Nash and staff, the second Health Science Triathlon was held. This time we limited the students to 54 in teams of 3, and changed it to a Round Robin format, which allowed for more competitions between teams. Also, in honor of the Health Science Certificate, Chemistry was added and thus the students competed in the topics of Anatomy and Physiology, Chemistry, and Microbiology. Our hope is to receive the financial support to hold this even biennially.

With better marketing of the Health Science Certificate through both the Counselling Office, the web site, and our biology faculty, we hope to increase the numbers of this certificate.

IV. Science and Math Area of Emphasis

Below are the current certificates awarded in Science and Math Area of Emphasis:

DEGS	2012-13	2013-14	2014-15	2015-16	2016-17
Liberal Arts: Science & Math	93	107	122	153	146

The Science and Math Area of Emphasis is under the Math Department in Curricunet. Currently, Deborah Henry is spearheading revision of this popular certificate as many of the courses on the certificate are no longer offered and many new courses could qualify. This revision of this certificate requires coordination across the Biological Sciences, the Physical Sciences, and the Math Department.

It is conceivable that the amount of certificates awarded in Science and Math Area of Emphasis may decrease as the science ADTs become available and there are more options for students who transfer.

Academic Year	2013-14	2014-15	2015-16
CENSUS Enrollment	3,654	3,339	3,749
FTES	459.0	452.0	535.7
FTEF30	11.1	11.0	14.2
WSCH/FTEF	680	648	618
Sections	78.0	74.0	87.5
Fill Rate	84.9%	84.2%	84.0%
DEGREES AND CERTIFICATES			
Associate Degrees	0	0	0
Certificates	0	0	0
STUDENT DEMOGRAPHICS			
GRADED Enrollment*	3,559	3,325	3,733
GENDER			
Female	57.3%	56.9%	55.6%
Male	41.5%	41.6%	43.0%
Unknown	1.2%	1.5%	1.4%
AGE at TERM			
Less than 19	10.4%	10.8%	8.8%
20 to 24	36.3%	38.9%	39.6%
25 to 29	20.2%	19.9%	20.9%
30 to 34	11.1%	9.9%	10.7%
35 to 39	6.6%	6.3%	6.5%
40 to 49	9.6%	8.1%	7.8%
50 and Older	5.8%	6.1%	5.7%
RACE/ETHNICITY			
African American	8.0%	6.6%	7.3%
American Indian	0.4%	0.2%	0.3%
Asian/Pacific Islander	34.9%	37.4%	38.6%
Hispanic/Latino	22.0%	21.5%	22.9%
2 or More Race	3.7%	4.5%	4.2%
White	27.5%	28.5%	25.4%
Unknown	3.5%	1.4%	1.4%
INSTRUCTIONAL MODALITY			
Cable			
Correspondence			
Hybrid	0.4%	0.5%	1.6%
Online	41.2%	43.5%	37.2%
Self-Paced			
Telecourse	13.4%	13.1%	15.6%
Traditional	45.0%	42.9%	45.6%
SUCCESS & RETENTION			
Course Success (A, B, C, P)	74.2%	74.6%	75.2%
Course Retention (A-F, P, NP)	86.5%	86.5%	87.0%

** Note: **GRADED ENROLLMENTS** excludes Zero Unit Lab enrollments since there is only 1 Grade issued across 2 or more CRNs.*

Academic Year	2013-14	2014-15	2015-16
-Overall Success Rate	74.3%	75.0%	75.2%
-Overall Retention Rate	86.5%	86.7%	87.0%

STUDENT DEMOGRAPHICS			
GENDER			
Female	2,039	1,889	2,073
Male	1,477	1,387	1,607
Unknown	43	49	51
Success Rate			
- Female	77.6%	77.1%	79.4%
- Male	70.2%	71.8%	69.4%
- Unknown	62.8%	83.7%	82.4%
Retention Rate			
- Female	86.9%	87.0%	87.8%
- Male	86.1%	86.2%	85.9%
- Unknown	79.1%	91.8%	88.2%

Academic Year	2013-14	2014-15	2015-16
-Overall Success Rate	74.3%	75.0%	75.2%
-Overall Retention Rate	86.5%	86.7%	87.0%

AGE at TERM			
Less than 19	369	358	330
20 to 24	1,292	1,294	1,476
25 to 29	720	661	782
30 to 34	396	329	399
35 to 39	235	210	241
40 to 49	339	270	291
50 and Older	208	203	212
Success Rate			
Less than 19	74.3%	79.9%	79.1%
20 to 24	76.5%	75.3%	80.3%
25 to 29	72.9%	73.1%	75.6%
30 to 34	74.2%	74.5%	65.2%
35 to 39	69.4%	71.0%	67.6%
40 to 49	73.5%	74.1%	66.0%
50 and Older	73.6%	76.8%	71.7%
Retention Rate			
Less than 19	86.7%	88.3%	91.5%
20 to 24	87.8%	87.2%	88.6%
25 to 29	85.4%	84.0%	86.8%
30 to 34	85.1%	83.9%	80.7%

35 to 39	84.7%	85.2%	84.2%
40 to 49	87.0%	88.5%	85.2%
50 and Older	85.1%	93.6%	87.3%

Academic Year	2013-14	2014-15	2015-16
-Overall Success Rate	74.3%	75.0%	75.2%
-Overall Retention Rate	86.5%	86.7%	87.0%

RACE/ETHNICITY			
African American	785	715	856
American Indian	1,246	1,242	1,438
Asian	286	219	271
Hispanic/Latino	131	148	155
Pacific Islander	118	45	47
White	980	948	951
Unknown	13	8	13

Success Rate

African American	67.5%	67.7%	67.1%
American Indian	82.9%	83.3%	84.8%
Asian	47.2%	47.0%	44.3%
Hispanic/Latino	70.2%	73.6%	67.1%
Pacific Islander	74.6%	62.2%	83.0%
White	77.4%	77.0%	77.7%
Unknown	69.2%	50.0%	61.5%

Retention Rate

African American	84.5%	82.8%	84.7%
American Indian	89.2%	90.2%	90.5%
Asian	80.1%	78.5%	78.2%
Hispanic/Latino	86.3%	84.5%	84.5%
Pacific Islander	85.6%	88.9%	87.2%
White	86.7%	87.2%	86.9%
Unknown	76.9%	100.0%	84.6%

Academic Year	2013-14	2014-15	2015-16
-Overall Success Rate	74.3%	75.0%	75.2%
-Overall Retention Rate	86.5%	86.7%	87.0%

INSTRUCTIONAL MODALITY			
Cable			
Correspondence			
Hybrid	15	18	60
Online	1,468	1,448	1,388
Self-Paced			
Telecourse	476	434	582
Traditional	1,600	1,425	1,701

Success Rate

Cable			
Correspondence			
Hybrid	86.7%	72.2%	85.0%
Online	74.3%	75.7%	75.6%
Self-Paced			
Telecourse	53.6%	59.7%	51.2%
Traditional	80.4%	78.9%	82.7%

Retention Rate

Cable			
Correspondence			
Hybrid	93.3%	77.8%	91.7%
Online	86.9%	87.0%	86.9%
Self-Paced			
Telecourse	84.7%	87.3%	86.1%
Traditional	86.6%	86.4%	87.3%

Internal Analysis: Marine Science

ENROLLMENT AND FTES:

The number of enrollments in Marine Science courses in 2015-2016 showed **a substantial increase (>= 10.0%)** from 2014-2015 and **a substantial increase (>= 10.0%)** in comparison with the number of enrollments in 2013-2014.

The FTES in Marine Science credit courses in 2015-2016 showed **a moderate increase (5.0% to 9.9%)** from 2014-2015 and **a substantial increase (>= 10.0%)** in with in comparison with FTES in 2013-2014.

EFFICIENCY (NUMBER OF SECTIONS, FILL RATE, FTEF/30, WSCH/FTEF):

The number of sections in Marine Science courses in 2015-2016 showed **minimal to no difference** from 2014-2015 and **a substantial decrease (>= -10.0%)** in comparison with the number of sections in 2013-2014.

The fill rate in Marine Science courses in 2015-2016 showed **a substantial increase (>= 10.0%)** from 2014-2015 and **a substantial increase (>= 10.0%)** in comparison with the fill rate in 2013-2014.

The FTEF/30 ratio in Marine Science courses in 2015-2016 showed **a slight decrease (-1.0% to -4.9%)** from 2014-2015 and **a substantial decrease (>= -10.0%)** in comparison with the FTEF/30 ratio in 2013-2014.

The WSCH/FTEF ratio in Marine Science courses in 2015-2016 showed **a substantial increase (>= 10.0%)** from 2014-2015 and **a substantial increase (>= 10.0%)** in comparison with the WSCH/FTEF ratio in 2013-2014.

COURSE SUCCESS RATE:

The course success rate in Marine Science courses in 2015-2016 showed **a substantial increase (>= 10.0%)** from 2014-2015 and **a slight decrease (-1.0% to -4.9%)** in comparison with the course success rate in 2013-2014. The course success rate from 2015-2016 showed **a slightly lower rate (-1.0% to -4.9%)** than the college success average* (*66.6%*) and showed **a moderately higher rate (5.0% to 9.9%)** than the institutional-set standard* (*56.6%*) for credit course success.

TERM RETENTION RATE:

The term retention rate in Marine Science courses in 2015-2016 showed **minimal to no difference** from 2014-2015 and **a slight decrease (-1.0% to -4.9%)** in comparison with the term retention rate in 2013-2014. The term retention rate from 2015-2016 showed **a slightly lower rate (-1.0% to -4.9%)** than the college retention average* (*83.3%*) and showed **a moderately higher rate (5.0% to 9.9%)** than the institutional-set standard* term retention (*70.8%*) for credit courses.

AWARDS (DEGREES AND CERTIFICATES):

The number of degrees in Marine Science in 2015-2016 showed **no previous data** from 2014-2015 and showed **no previous data** in comparison with the number of degrees awarded in 2013-2014.

The number of certificates in Marine Science in 2015-2016 showed **no previous data** from 2014-2015 and showed **no previous data** in comparison with the number of certificates awarded in 2013-2014.

MODALITY:

In 2015-2016 **none (0%)** of the **Marine Science** courses were offered as **cable** courses, while **none (0%)** of the courses were offered in **correspondence**, **none (0%)** of the courses offered were **hybrid**, **none (0%)** of the courses offered were **online**, **none (0%)** of the courses offered were **self-paced**, **the majority (75% to 99%)** of

the courses offered were **telecourse**, and **less than a quarter (1% to 24%)** of the courses were offered in **traditional in-person** setting.

GENDER

In 2015-16 there **was NOT a disproportional impact** in **Marine Science** course success rates for *female students*; and there **was NOT a disproportional impact** in **Marine Science** course success rates for *male students*.

AGE GROUPS

In 2015-2016 there **was NOT a disproportional impact** in **Marine Science** course success rates for students *less than 20 years old*; there **was NOT a disproportional impact** in **Marine Science** course success rates for students *20 to 24 years old*; there **was NOT a disproportional impact** in **Marine Science** course success rates for students *25 to 29 years old*; there **was NOT a disproportional impact** in **Marine Science** course success rates for students *30 to 34 years old*; there **was NOT a disproportional impact** in **Marine Science** course success rates for students *35 to 39 years old*; there **was NOT a disproportional impact** in **Marine Science** course success rates for students *40 to 49 years old*; there **was NOT a disproportional impact** in **Marine Science** course success rates for students *50+ years old*.

RACE/ETHNICITY

In 2015-2016 there **was NOT a disproportional impact** in **Marine Science** course success rates for *African American* students; there **was NOT a disproportional impact** in **Marine Science** course success rates for *American Indian* students; there **was NOT a disproportional impact** in **Marine Science** course success rates for *Asian/Pacific Islander* students; there **was NOT a disproportional impact** in **Marine Science** course success rates for *Hispanic/Latino* students; there **was NOT a disproportional impact** in **Marine Science** course success rates for *White/Non-Hispanic* students; there **was NOT a disproportional impact** in **Marine Science** course success rates for *Multi-race* students; there **was NOT a disproportional impact** in **Marine Science** course success rates for students who have *declined to state their race/ethnic identity*.

> *Note: Disproportional Impact is calculated via the Proportionality Index Method with an 80% threshold for negative impact. This method is a measure of representational equity of each subgroup to its initial proportionality at the beginning of the term. Proportionality Index Method compares the demographic characteristics of those who successfully completed the course to the demographics characteristics of the same group that enrolled in the course at the beginning of the term. Proportions of less than 80% are flagged as experiencing disproportional impact.*

Implications of Change:

Many years ago, Marine Science was offered as an onsite course. However, when our part time instructor left Coastline for a permanent position elsewhere, Marine Science continued only as a telecourse. With the hiring of Dr. Tanya Murray three years ago, Marine Science 100 online was offered for the first time in spring 2017. The non-biology major students are trending away from onsite science courses and moving towards online.

An additional change is cross-listing MRSC100 with BIOL 103. In our Biology Department, we are moving to cross-list our courses in hard to find categories (such as Marine Science and Ecology) with a biology prefix so that students and counsellors can easily access the information. The addition of the cross-listed class was submitted to Curricunet in the spring of 2017 and is awaiting articulation.

Academic Year	2013-14	2014-15	2015-16
CENSUS Enrollment	439	481	530
FTES	37.0	44.0	47.2
FTEF30	0.7	0.6	0.6
WSCH/FTEF	863	1,201	1,336
Sections	6.0	5.0	5.0
Fill Rate	62.9%	69.7%	76.8%
DEGREES AND CERTIFICATES			
Associate Degrees	0	0	0
Certificates	0	0	0
STUDENT DEMOGRAPHICS			
GRADED Enrollment*	437	479	531
GENDER			
Female	21.3%	14.8%	11.7%
Male	78.3%	84.3%	88.1%
Unknown	0.5%	0.8%	0.2%
AGE at TERM			
Less than 19	7.8%	5.2%	1.9%
20 to 24	16.9%	18.0%	14.3%
25 to 29	16.7%	17.7%	18.1%
30 to 34	16.5%	15.9%	15.8%
35 to 39	14.4%	12.9%	16.2%
40 to 49	14.9%	19.0%	23.4%
50 and Older	12.8%	11.3%	10.4%
RACE/ETHNICITY			
African American	11.9%	14.2%	12.6%
American Indian	2.3%	1.3%	1.9%
Asian/Pacific Islander	11.0%	10.0%	6.4%
Hispanic/Latino	21.7%	25.7%	29.9%
2 or More Race	4.8%	5.4%	5.5%
White	45.8%	40.9%	42.2%
Unknown	2.5%	2.5%	1.7%
INSTRUCTIONAL MODALITY			
Cable			
Correspondence			
Hybrid			
Online			

Self-Paced			
Telecourse	85.4%	91.6%	96.2%
Traditional	14.6%	8.4%	2.8%
SUCCESS & RETENTION			
Course Success (A, B, C, P)	65.7%	57.8%	63.8%
Course Retention (A-F, P, NP)	83.8%	79.8%	80.3%

** Note: **GRADED ENROLLMENTS** excludes Zero Unit Lab enrollments since there is only 1 Grade issued across 2 or more CRNs.*

Academic Year	2013-14	2014-15	2015-16
-Overall Success Rate	65.7%	58.0%	63.8%
-Overall Retention Rate	83.8%	80.2%	80.3%

STUDENT DEMOGRAPHICS			
GENDER			
Female	93	71	62
Male	342	404	465
Unknown	2	4	1
Success Rate			
- Female	67.7%	52.1%	71.0%
- Male	64.9%	59.4%	63.0%
- Unknown	100.0%	25.0%	0.0%
Retention Rate			
- Female	83.9%	71.8%	91.9%
- Male	83.6%	81.4%	78.9%
- Unknown	100.0%	100.0%	0.0%

Academic Year	2013-14	2014-15	2015-16
-Overall Success Rate	65.7%	58.0%	63.8%
-Overall Retention Rate	83.8%	80.2%	80.3%

AGE at TERM			
Less than 19	34	25	10
20 to 24	74	86	75
25 to 29	73	85	96
30 to 34	72	76	83
35 to 39	63	62	86
40 to 49	65	91	123
50 and Older	56	54	55
Success Rate			
Less than 19	67.6%	68.0%	80.0%
20 to 24	55.4%	54.7%	58.7%
25 to 29	68.5%	52.9%	56.3%
30 to 34	63.9%	64.5%	67.5%
35 to 39	73.0%	51.6%	61.6%
40 to 49	64.6%	61.5%	65.9%
50 and Older	69.6%	59.3%	74.5%

Retention Rate			
Less than 19	85.3%	80.0%	90.0%
20 to 24	82.4%	77.9%	80.0%
25 to 29	84.9%	78.8%	76.0%
30 to 34	83.3%	81.6%	79.5%
35 to 39	87.3%	83.9%	79.1%
40 to 49	76.9%	78.0%	82.9%
50 and Older	87.5%	83.3%	83.6%

Academic Year	2013-14	2014-15	2015-16
GRADED ENROLLMENT	437	479	528
-Overall Success Rate	65.7%	58.0%	63.8%
-Overall Retention Rate	83.8%	80.2%	80.3%

RACE/ETHNICITY			
African American	95	123	160
American Indian	48	48	34
Asian	51	69	66
Hispanic/Latino	22	26	29
Pacific Islander	11	10	8
White	200	197	221
Unknown	10	6	10

Success Rate			
African American	67.4%	53.7%	58.8%
American Indian	62.5%	62.5%	67.6%
Asian	56.9%	50.7%	57.6%
Hispanic/Latino	63.6%	57.7%	58.6%
Pacific Islander	72.7%	60.0%	75.0%
White	69.0%	61.4%	68.3%
Unknown	40.0%	83.3%	80.0%

Retention Rate			
African American	87.4%	74.8%	78.8%
American Indian	81.3%	81.3%	76.5%
Asian	82.4%	81.2%	83.3%
Hispanic/Latino	81.8%	80.8%	72.4%
Pacific Islander	90.9%	90.0%	75.0%
White	84.5%	81.7%	81.4%
Unknown	50.0%	100.0%	100.0%

Academic Year	2013-14	2014-15	2015-16
GRADED ENROLLMENT	437	479	528
-Overall Success Rate	65.7%	58.0%	63.8%
-Overall Retention Rate	83.8%	80.2%	80.3%

INSTRUCTIONAL MODALITY			
Cable			
Correspondence			
Hybrid			
Online			
Self-Paced			
Telecourse	373	439	508
Traditional	64	40	15

Success Rate

Cable			
Correspondence			
Hybrid			
Online			
Self-Paced			
Telecourse	67.0%	58.1%	63.4%
Traditional	57.8%	57.5%	66.7%

Retention Rate

Cable	0.0%	0.0%	0.0%
Correspondence	0.0%	0.0%	0.0%
Hybrid	0.0%	0.0%	0.0%
Online	0.0%	0.0%	100.0%
Self-Paced	0.0%	0.0%	0.0%
Telecourse	84.5%	81.1%	80.1%
Traditional	79.7%	70.0%	80.0%

Academic Year	2013-14	2014-15	2015-16
CENSUS Enrollment	370	336	375
FTES	36.0	34.0	38.8
FTEF30	1.2	1.2	1.4
WSCH/FTEF	505	466	452
Sections	7.0	7.0	8.0
Fill Rate	83.7%	77.4%	76.4%
DEGREES AND CERTIFICATES			
Associate Degrees	0	0	0
Certificates	0	0	0
STUDENT DEMOGRAPHICS			
GRADED Enrollment*	354	338	376
GENDER			
Female	58.5%	54.1%	55.6%
Male	39.8%	43.5%	42.3%
Unknown	1.7%	2.4%	2.1%
AGE at TERM			
Less than 19	11.0%	10.7%	8.2%
20 to 24	37.9%	45.6%	46.5%
25 to 29	22.9%	19.5%	22.1%
30 to 34	13.0%	10.7%	9.3%
35 to 39	3.4%	5.3%	5.9%
40 to 49	7.6%	4.4%	4.5%
50 and Older	4.2%	3.8%	3.5%
RACE/ETHNICITY			
African American	4.2%	1.8%	2.7%
American Indian	0.3%	0.3%	0.3%
Asian/Pacific Islander	38.4%	37.6%	38.8%
Hispanic/Latino	16.7%	21.0%	19.4%
2 or More Race	5.9%	4.4%	4.3%
White	30.5%	33.7%	32.4%
Unknown	4.0%	1.2%	2.4%
INSTRUCTIONAL MODALITY			
Cable			
Correspondence			
Hybrid	23.2%	27.5%	26.9%
Online	76.8%	72.5%	70.5%
Self-Paced			
Telecourse			
Traditional			2.7%
SUCCESS & RETENTION			
Course Success (A, B, C, P)	76.6%	75.8%	81.1%
Course Retention (A-F, P, NP)	83.9%	88.5%	89.6%

** Note: **GRADED ENROLLMENTS** excludes Zero Unit Lab enrollments since there is only 1 Grade issued across 2 or more CRNs.*

Student (SLOs) and Program Student Learning Outcome (PSLOs)

SLOs for all Biology and Marine Science courses were updated during our curriculum review in Fall 2016-Spring 2017. SLO workshop was held in Spring 2017, led by Josh Levenshus to plan SLO updates, implementation, delivery and analyses. Further discussion was at the All College Meeting in August 2017. Our timeline for SLOs is:

Year 1 Fall: Bio 100, Bio 100L (Dr. Murray in charge). Year 4 Bio 100C

Year 1 Spring: Bio 180 (Dr. Fauce), Bio 210 (Dr. Salcedo), Bio 225 (Dr. Henry)

Year 2 Fall: Bio 185 (Dr. Murray), Bio 220 (Dr. Henry), Work Study (Dr. Murray)

Year 2 Spring: MRSC 100, MRSC 100L, ECOL 100 (Dr. Murray), Bio 282 (Dr. Fauce)

Year 3 Fall: Bio 120 (Dr. Henry/Talmage), Bio 200 (Dr. Henry/Giancarlo), Bio 281 (Dr. Fauce)

Year 3 Spring: Bio 102 (Dr. Henry), Bio 104 (Dr. Salcedo/Wahba), Bio 283 (Dr. Fauce)

Curriculum Review

Table Curriculum Review

Course	Date Reviewed	Status
BIOL100, 100L, 100C	Fall 2016	Approved
BIOL104	SPR2017	APPROVED
BIOL120	SPR2017	APPROVED
BIOL180	FALL2016	APPROVED
BIOL185	FALL2016	APPROVED
BIOL200	FALL2016	APPROVED
BIOL210,211,2IIL	SPR2017	APPROVED
BIOL220	FALL2016	APPROVED
BIOL221	SPR2017	APPROVED
BIOL282	SPR2017	APPROVED
BIOL283	SPR2017	APPROVED
BIOL291,292,293,294	SPR2017	APPROVED
BIOL296	SPR2017	APPROVED
MRSC100/100L;BIOL103/103L	SPR2017	APPROVED
ECOL100 (BIO 106)	SPR2017	APPROVED
HEALTH SCIENCE CERTIFICATE PROGRAM	FALL2016	APPROVED
BIOTECHNOLOGY CERTIFICATE	IN PROGRESS	APPROVED

External Compliance

External Compliance depends on the District, our single Instructional Lab Associate, and participation of the biology faculty. The information below was prepared by Kevin Pegg, our district representative. Our single instructional lab associate, Angelique Hill, is responsible for compliance over our three campus, six labs, and our average 22 sections of just biology labs a semester.

Applicable Regulations to the Laboratories

California Code of Regulations, Title 8, Section 3203 (Injury and Illness Prevention Program)
California Code of Regulations, Title 8, Section 5191 (Occupational Exposures to Hazardous Chemicals in Laboratories)
California Code of Regulations, Title 8, Section 5139 (Dusts, Fumes, Mists, Vapors, and Gases)
California Code of Regulations, Title 8, Section 5154.1 (Ventilation Requirements for Laboratory-Type Hood Operations)
California Code of Regulations, Title 8, Section 5155 (Airborne Contaminants)
California Code of Regulations, Title 8, Section 5194 (Hazard Communication)
California Code of Regulations, Title 8, Section 5164 (Storage of Hazardous Materials)
California Code of Regulations, Title 8, Section 3380 (Personal Protective Equipment)
California Code of Regulations, Title 8, Section 5193 (Bloodborne Pathogens)
California Code of Regulations, Title 8, Section 5144 (Respiratory Protection)
California Code of Regulations, Title 24, Division 4.5 (Hazardous Waste Management)
Cal. Health and Safety Code, Division 104, Part 14, Sections 117600-118360 (Medical Waste Management)

Actions Taken

- Tri-annual pick-ups for hazardous waste
- Annual formaldehyde sampling of storage areas
- Annual fume hood/ventilation certifications
- Annual inventory checks and Safety Data Sheet updates
- Annual laboratory inspections covering the following items
    - General Safety/Housekeeping
    - Emergency Equipment and Planning
    - Personal Protective equipment
    - Signs, Labels, Plans, and Postings
    - Chemical and Microbial Safety
    - Electrical Hazards
    - Compressed Gases
    - Engineering Controls
    - Training and Documentation

Gaps

- Engineering controls such as exhaust ventilation in the anatomy and physiology laboratories at Le-Jao Center and Newport Beach Center
    - Testing with portable air scrubbers w/activated charcoal filters

- Dedicated hazardous waste storage site (outside of the laboratory) at Le-Jao Center, Garden Grove Center, and Newport Beach Center
- Exposure monitoring for dissection specimen off-gassing solvents and preservative chemicals
- Chemical Hygiene Plan/Lab Safety training for staff and faculty
- Spill Prevention, Control, and Countermeasures training for staff and faculty

Progress on Initiatives: Completed, Ongoing, Begun in the course of this year

Initiative(s)	Status	Progress Status Description	Outcome(s)
Biology: Develop and offer Health Science Certificate and AS degree and explore partnerships with local health care facilities	100% Complete	Health Science Certificate is in its fourth year of awards.	Increased Health Science Certificate awards from 17 2015-2016 to 24 2016-2017
Biology: Implementation of Biology major courses	100 % Complete	The Biology majors courses are in their fourth year of being offered; ADT in Biology has been approved at curriculum, but is pending the C-ID approval in Chemistry	All curriculum has been updated; BIOL185 includes research experience with local scientists and citizen-science programs
Biology: Redesign general biology laboratory instructional materials	100% Complete	Adopted different lab manual and implemented new experiments and ordered supplies with lottery funds	Improvement in similarity across the sections.
Biology: Develop independent study course involving human cadaveric dissection	Partially Complete	Course is developed and approved at State level. Awaiting contractor plan and final funding for specialized room	We are in need of a specially designed room. The location in NBC identified. Waiting to set up a meeting with engineer. Have met with a room designer and a supplier of required equipment (all complimentary meetings to date)
Biology: Offer Biology AS-T degree	Awaiting the C-ID approval of Chemistry courses at the State level	The Biology ADT is Approved at Curriculum; C-IDs for the Chemistry courses were submitted in Spring and are awaiting approval.	Marketing needed
Biology: Bio-technician Certificate	In Review	Curriculum Committee recommended to not suspend program, but still needs administrative support. Curriculum will be	Decision needs to be made at the Institutional Level whether to enact this Certificate again. We could use the Microbiology labs

		revised pending administrative support for the program;	at Garden Grove on off days. Perhaps Perkins funds could be used?
Biology: STEAM Advanced Informal STEM Learning	Initiated	Cooperation with Computer Networking/Digital Media, Art, and Physical Sciences began to write and submit AISL grant; see Initiatives below	STEAM Academy to serve as 1) community outreach and education, 2) supplement STEAM experiences for CCC students, 3) promote underrepresented population participation in STEM fields
Biology: STEM Scholarship Program	Inititiated	S-STEM grant submitted to NSF to support and grow STEM program at CCC; proposal revisions will be incorporated and grant resubmitted if it is not funded	Cooperation between all sciences and student services to move a step forward in developing STEM at CCC and improving opportunities for underrepresented students
Biology: Study Abroad	Initiated	Study abroad trip and associated curriculum planned for 2018 through Study Abroad Department, recruitment has begun	Marketing needed
Biology: Develop independent study course BIOL292 Work Based Learning	Completed, ongoing	Eight students served as interns for Institute for Conservation Research and Education in Summer 2017; one intern is enrolled in Fall 17	Additional research opportunities are now available to support student learning and employment in STEM related fields
Biology: Internship Program/Community outreach with Girls Inc.	Completed, ongoing	The Life Sciences department supported one "extern" for Girls Inc. internship program in Summer 2017	Developed new relationship with secondary school students and community outreach programs in Costa Mesa
Biology/Ecology: ECOL100	Initiated	Updates were approved by Curriculum Committee, but must be cross-listed (submitted to Curriculum Committee) to appear as a BIOL course as well; will be taught for the first semester, Spring 2018	Increased course offerings for non-major students
Biology: BIOL281 Biochemistry	Completed	Approved by Curriculum Committee, Being taught for the first semester, Fall 2017	Increased course offerings for major-level bio students
Biology: BIOL282 Molecular Biology	Completed	Approved by Curriculum Committee, will be taught for the first semester, Spring 2018	Increased course offerings for major-level bio students
Biology: Health Sciences Triathlon	Completed, ongoing	Held for the second time in Spring 2017; will be held	Increased sense of community among biology

		every other year moving forward	students and faculty; learning opportunity for biology students; additional prep for students facing standardized entrance exams for health science programs
Biology Health Science Certificate	Completed Needs Marketing	Encourage Students to earn the certificate with the courses that they have already taken	Marketing; Increase awareness in Counseling
Hoag Scholars Program	Ongoing	Yearly, have Hoag Scholar visit to tell of the great health care experience at Hoag and its application process	Increased competency of students in the pre-health care fields
Faculty Web Pages	initiated	initiated	increase student awareness of faculty and programs
Canvas Shell for Biology Department	Not yet started	Not yet started	Allows for communication between part and full time faculty and sharing of best practices.
New SLO Collection	Fall 2017	Fall 2017	Compare Student assessment with faculty assessment techniques
Updated Microbiology Lab Manual	Initiated	initiated	Concise manual for student education

Program Planning and Communication Strategies

Programmatic and curriculum planning

Regular monthly department meetings allow us to discuss department needs, visions for the future, and coordinate course offerings and scheduling within the department and across sciences to maximize student course offerings.

SLO/PSLO data

SLOs for all Biology and Marine Science courses were updated during our curriculum review in Fall 2016-Spring 2017. SLO workshop was held in Spring 2017, led by Josh Levenshus to plan SLO updates, with attendance from both full time and part time faculty. Creating the below timeline was a joint effort between the SLO coordinator and both full and part time faculty.

Timeline:

Year 1 Fall: Bio 100, Bio 100L (Dr. Murray in charge). Year 4 Bio 100C

Year 1 Spring: Bio 180 (Dr. Fauce), Bio 210 (Dr. Salcedo), Bio 225 (Dr. Henry)

Year 2 Fall: Bio 185 (Dr. Murray), Bio 220 (Dr. Henry), Work Study (Dr. Murray)

Year 2 Spring: MRSC 100, MRSC 100L, ECOL 100 (Dr. Murray), Bio 282 (Dr. Fauce)

Year 3 Fall: Bio 120 (Dr. Henry/Talmage), Bio 200 (Dr. Henry/Giancarlo), Bio 281 (Dr. Fauce)

Year 3 Spring: Bio 102 (Dr. Henry), Bio 104 (Dr. Salcedo/Wahba), Bio 283 (Dr. Fauce)

FACULTY WEB PAGES

Dr. Deborah Henry has initiated discussion with Chris Johnston to create a Biology Department web page. She has begun collecting photos and biographies of our approximately 24 full and part-time faculty. This project will be finished by the beginning of the new year.

Institutional performance data

All college and Fulltime Faculty meetings held bi-annually provide review and discussion of institutional data.

Forward Strategy

College goals the Above Initiatives and Program Planning and Communication Strategies support:

- Instructional and Programmatic Excellence
- Access and Student Support

Educational Master Plan objective the above Initiatives and Program Planning and Communication Strategies support:

- Increase student success, retention, and persistence across all instructional delivery modalities with emphasis in distance education.
  Provide universal access to student service and support programs.
- Strengthen post-Coastline outcomes (e.g., transfer, job placement).
- Explore and enter new fields of study (e.g., new programs, bachelor's degrees).
- Foster and sustain industry connections and expand external funding sources (e.g., grants, contracts, and business development opportunities) to facilitate programmatic advancement.
- Strengthen community engagement (Hoag Scholars Program)

What evidence supports these initiatives?

- Learning Outcome (SLO/PSLO) assessment
- Internal Research (Student achievement, program performance)
- External Research (Academic literature, market assessment, audit findings, compliance mandates)

Initiative(s)
Biology: Health Science Certificate-Completed; Needs Marketing-through Web site, fliers, counseling, Canvas, faculty-requires small budget. Timeline: web site-2018; fliers 2018, Canvas-2018
Biology: Biology major courses-C-IDs pending-Fall 2018 for final approval
Biology: Cadaver Lab-initiated; dependent on funding-3 years
Biology: Bio-technician Certificate-Needs revisited
Biology: STEAM Advanced Informal STEM Learning-ongoing
Biology: STEM Scholarship Program 5 years; dependent on STEM Grant that was submitted Spring 2017
Biology: Study Abroad-Being offered Spring 2017
Biology: Internship Program/Community outreach with Girls Inc-Search for funding
Biology/Ecology: ECOL100-Being offered first time Spring 2018
Biology: BIOL281 Biochemistry-Offered Fall 2017
Biology: BIOL282 Molecular Biology-Being offered first time Spring 2018
Biology: Health Sciences Triathalon-needs permanent funding-planned for Spring 2019
Hoag Scholars Program- work on establishing an ongoing relationship Fall 2018
Faculty Web Pages –initiated-to be completed Spring 2018
Canvas Shell for Biology Department-Dependent on the Faculty Success Center
New SLO Collection-3 year cycle, starting Fall 2017
Updated Microbiology Lab Manual-2019 (Dr. Salcedo)

Section 2: Human Capital Planning

Staffing

Table 2.1 Staffing Plan

Year	Administrator	Management	F/T Faculty Biology	Adjunct Biology	Classified Biology	Hourly Biology
Previous year 2016-17	Dean 1	0	5	Instructor 15	1 (Instructional Associate)	3 (Instructional Associate)
Current year 2017-18	Dean 1	0	5	Instructor 17	1 (Instructional Associate)	2 (Instructional Associate)
1 year 2018-19	Dean 1	0	5	Instructor 18	2 (Instructional Associate)	2 (Instructional Associate)
2 years 2019-2020	Dean 1	0	6	Instructor	2 (Instructional Associate)	2 (Instructional Associate)
3 years 2020-2021	Dean 1	0	6	Instructor	2 (Instructional Associate)	2 (Instructional Associate))

Instructional Lab Associate

Definition:

Under general supervision, provides instructional assistance and support tasks to students in the Biological Science and Chemistry classes in accordance with assignments and directions from a course instructor or other academic personnel; provides technical assistance to students, faculty, and staff in the use of technology in instructional programs; monitors and reports student progress; maintains Biological Science lab operations; provides instructional support for the students enrolled in Biological Science and Chemistry classes/labs requiring technical competence in basic math, general biology, chemistry, use of instructional equipment and software, and basic academic skills.

1.) The Biology Department requires one additional Full time Instructional Associate so that we have two full time Instructional Lab Associates. The current Biology Full time Instructional Lab Associate is dedicated to running the Microbiology labs at two campuses over four days. Currently, she is at Garden Grove on Monday and Wednesdays preparing for the 3 sections of classes that go from 9Am-10:20PM and the Tuesday section that goes from 1PM-5:55PM; and at Newport Beach Center on Tuesday and Thursday, preparing for the two Tuesday/Thursday sections that go from 1PM to 10:20PM.

In the fall 2018, we hope to have 3 classes at Garden Grove and 3 at Newport Beach Center. With an additional Instructional Lab Associate, we can go back to four sections at Garden Grove with the three sections at Newport Beach Center. This Instructional Lab Associate will also cover Bio 180-Cell and Molecular Biology.

The second Biology Instructional Associate will cover the onsite Bio 100 labs (currently one on site section in the fall and two STAR/non-STAR sections in the spring-at two campuses (Garden Grove and Newport Beach Center), Bio 220 Human Anatomy-8 sections a semester at two campuses (Le-Jao and Newport Beach Center), Bio 225 Human Physiology -4 sections a semester at two campuses (Le-Jao and Newport Beach Center), Bio 185 Diversity of Organisms, currently one section a semester at one campus (Newport Beach Center) and MRSC 100 L (Bio 103L), currently one section at one campus (Newport Beach Center).

Having added the Chemistry/Physical Science Instructional Lab Associate has already saved the college some money. She was able to locate instruments in the Physics department that could be used in Chemistry, thus saving that Department from repurchasing supplies already here.

2.) Continue Two Part Time Instructional Lab Associates. We would like to continue with two Part Time instructional Lab Associates. Currently these are Temporary Part Time. Consideration should be given to making them a permanent position. We need Part Time Instructional Associates to help coordinate the laboratories and the experiments especially in the late afternoon and evening when there is usually no help for the part time faculty who do the bulk of the evening labs.

Additional Justification:
1.) Instructional Lab Associates are on the faculty side of the 50/50 rule.
2.) Since the last 5-year program review, we have added a new campus with two additional biology laboratories, running at near capacity, but with no increase in Instructional Support
3.) Splitting the Science Department allowed us to support Chemistry/Physics/Astronomy with its own Instructional Lab Support, but still has not helped the Biological Sciences with its increase in labs run or in sections run.
4.) An additional Full Time Instructional Lab Associate will allow us to revisit the Biotechnology Certificate
5.) An additional Full Time Instructional Lab Associate will allow us to better support our current 17 adjunct faculty, especially those running labs in the late afternoon and evening
6.) An additional Full Time Instructional Lab Associate will help with the safety of all our students. Many come to Community College with minimal laboratory skills. With our labs now often with 35 students, having an extra hand in experiments involving bacteria, Bunsen burners, and knives is invaluable both to the student and faculty.

Professional Development

Below is a summary of some of the professional development in our department since the last program review. It is not all inclusive.

Table 2.2 Professional Development

Name (Title)	Professional Development	Outcome
Tanya Murray, Professor	1.) HACU Conference, Costa Rica, March 2017 2.) Webinar NROC, August 2015 3.) Peer-Review of Plant Ecology Journal, December 2015 4.) Science Mentor for FLOW and Amigos de Bolsa Chica, Huntington Beach 5.) Completed a manuscript reviewing the neurobiology of Alzheimer's Disease, focusing on 5HT neurotransmission and the activity of current and novel pharmaceutical agents as a contracted piece for Arbor Scientia in Dec 2015	Increased Study Abroad Opportunities for sciences Keep current in field Publications and journal reviews
Andre Le, Instructional Associate	Orange County Dept of Education Biotech Collaboration Conference, Orange County CA, July 2017	Increased awareness of Biotechnology educational trends in the OC
Deborah Henry, Professor	1.) Western Neurosurgical Conference, San Diego, September 2016	Increased awareness of medical practices associated

	2.) California Association of Neurological Surgeons, San Francisco, January 2017 3.) IEPI Guided Pathways Conference, Irvine, January 2017 4.) Council of State Neurological Surgeons, Los Angeles, April 2017 5,) AANS Medical Ethics initial Conference, Los Angeles, April 2017 6.) Western Neurosurgical Conference, Banff, Canada, September, 2107 7.) Publication of *Lab Exercises in Human Physiology*, Fall 2016; 2nd edition Fall 2017 8.) 2016 Faculty Leadership Institute, Riverside, June 2016 9.) Summer Institute, Garden Grove, 2015, 2016 10.) Baylor College of Medicine Alumni Symposium, Houston, May 2016 11.) California Association of Neurological Surgeons Annual Meeting in January 2015, Newport Beach 12.) Faculty Success Center Workshop in Cerritos on March 27, 2015 13.) Completed the Reading Apprenticeship course from West-Ed March –May 2015 14.) Council of State Neurosurgical Societies meeting in Washington DC in May 2015 15,) Western Neurosurgical Society 61st Annual Meeting in Kauai in September 2015 16.) Council of State Neurosurgical Societies in New Orleans in October 2015 17.) CANS Leadership Conference, Summer 2015,Sacremento 18.) Western Neurosurgical Society 60th Meeting, Idaho, August 2014 19.) The Western Neurosurgical Society 59th Meeting, Half Moon Bay, September 2013 20.) 2013 Curriculum Institute, July 2013, Anaheim 21.) ASCCC Fall Plenary, Irvine, November 2016 22.) LINKS 10, Taking the Lead: Building Sustainable Professional Learning, Santa Ana College, September 2014 23.) BSILI 2014 Leadership for Curricular and Institutional Transformation, Arrowhead, CA, ,June 2014 24.) Globally Harmonized System Safety Training, Westminster, February 2014	with our Health Science Certificate and implications for student support; Understand and help spearhead guided pathways. Increase pedagogy awareness
Tracey Magrann	Assembly on Education-American Health Information Management Association, Anaheim, July-August, 2017	Improvement in Education of our pre-health care students

Dorrie Talmage	1.) American Academy of Nurse Practitioners, Philadelphia, June 2017 2.) Chiropractic Conference, Houston, July 2017	Maintain CEU for degrees
Frank Sauer	Saber West Conference, UCI, January 2017	PDP training on teaching strategies and tools, safety, and student health
Debra Stockwell	Online Learning Consortium Collaborate Meeting, Los Angeles, March 2016,	Improve online learning
David Camerini	Update his Virology textbook, Taos, NM, March 2017	Keep current in his field
Randall Warwick	Publication of the 5th Edition of his textbook: *Biology: Independent Study Manual*	

Forward Strategy

We need a second full time Instructional Lab Associate for the Biology Department. It is impossible for one person to run 20 biology labs across three campuses, maintain safety and safety inspections, and prepare for all the labs. To put this in perspective, we offer 6 microbiology labs on two campuses; OCC offers six Microbiology labs on one campus and has a dedicated full time Instructional Lab Associate for this. We offer one more Bio 220 Human Anatomy and 2 more Bio 225 Human Physiology classes on two campuses than OCC. We will heavily market for this position (See argument above).

Two years from now, we will need an additional Full Time faculty in Biology. We have grown the Biology department across three campuses and have added 8 new courses over the past three years. With our aging faculty, we will require an additional faculty member to train and move through tenure. We are beginning to market for this with this program review.

Section 3: Facilities Planning

Facility Assessment

Currently we have four biology labs across three campuses. We have two at Newport Beach Center, one at Le-Jao Center, and one at Garden Grove Center. Because the Garden Grove and Le-Jao Center only have one lab each, this makes it difficult for the science or health science student to take more than one class at one campus. This also increases the work load and cost for travel on faculty and our lone instructional lab associate. This also increases the biohazard at three campuses.

1.) **Garden Grove Lab Center**: Ideally, we would have an additional laboratory space at the Garden Grove campus where students could take Anatomy and Physiology classes. Having an up-to-date laboratory, with two doors for safety (as the Le-Jao lab has only one) and a prep area (as the Le-Jao has none), would alleviate some of the additional work and travel time for faculty, staff, and students. If there is enough room, additional faculty offices could be made at Garden Grove as well.

2.) **Cadaver Lab**: Some students, as part of their application process for transfer to degree programs, require access to a human cadaver. Having a human cadaver program would enhance the Health Science students experience, meet the needs of the transfer student requirements, and may eliminate the need for the dissection of cats (which has become increasingly difficult as there is a shortage). Also, as one student put it, this is a Human Anatomy class, not a Cat Anatomy class. Below are the current numbers of students served in the Health Sciences:

Academic Year	2013-2014					
Semester	Summer		Fall		Spring	
CourseID	Sections	Enrollment	Sections	Enrollment	Sections	Enrollment
BIOL 210	0	0	4	103	3	84
BIOL 220	2	50	7	195	6	173
BIOL 225	2	60	5	126	3	81
CHEM 110	1	62	4	137	3	135
CHEM 110L	2	63	5	136	4	135
CHEM 180	1	32	2	78	2	85
CHEM 180L	1	32	3	77	3	84
Total by COLUMNS	9	299	30	852	24	777

Academic Year	2014-2015					
Semester	Summer		Fall		Spring	
CourseID	Sections	Enrollment	Sections	Enrollment	Sections	Enrollment
BIOL 210	0	0	3	86	3	85
BIOL 220	2	61	7	202	7	188
BIOL 225	1	33	4	99	4	113
CHEM 110	1	70	5	146	6	157
CHEM 110L	2	71	0	0	0	0
CHEM 180	1	31	2	80	2	80
CHEM 180L	1	32	3	78	3	78
Total by COLUMNS	8	298	24	691	25	701

Academic Year	2015-2016					
Semester	Summer		Fall		Spring	
CourseID	Sections	Enrollment	Sections	Enrollment	Sections	Enrollment
BIOL 210	0	0	4	97	4	102
BIOL 220	4	103	8	220	7	191
BIOL 225	3	81	5	126	5	145
CHEM 110	3	116	5	148	6	182
CHEM 110L	0	0	0	0	0	0
CHEM 180	2	60	2	70	2	82
CHEM 180L	2	58	3	67	3	80
Total by COLUMNS	14	418	27	728	27	782

Academic Year	2016-2017					
Semester	Summer		Fall		Spring	
CourseID	Sections	Enrollment	Sections	Enrollment	Sections	Enrollment
BIOL 210	0	0	5	135	5	130
BIOL 220	2	67	7	194	8	233
BIOL 225	2	54	5	116	5	137
CHEM 110	3	76	5	105	6	166
CHEM 110L	0	0	0	0	0	0
CHEM 180	2	59	2	59	2	58
CHEM 180L	2	53	2	56	2	52
Total by COLUMNS	11	309	26	665	28	776

From Summer 2013 to Spring 2017, we have served 7,296 students in the Health Science Certificate courses. Of these students, 1,867 have taken Bio 220 Human Anatomy.

Progress:
1. Location selected-the Cadaver Lab would encompass the computer room of room 215 and the back of lab 206. The Cadaver Lab would be accessible to both labs. Doors would close of the Cadaver Lab inside each respective lab. See Blue Print sent with this Program Review.

2. Equipment research:
Please see the attached first quote from MOPEC sent with this Program Review

3. Designer: Free consultation from: Sue Clineff, Dow Diversified, 949-648-0992.

4. Engineer Recommendation for Ventilation (on approved vendor list for District):
Bill Bisset
Keystone Engineering Solutions, Inc.
9550 Research Dr.
Irvine, CA 92618
www.kesolutions.com
949-981-4383 cell
949-336-7806 office

Forward Strategy

GARDEN GROVE LAB CENTER

What college goal does the Garden Grove Center Lab Center support?

- Instructional and Programmatic Excellence- Create two centers for the Health Sciences and Science majors
- Access and Student Support
- Student Retention and Persistence
- Culture of Evidence, Planning, Innovation, and Change
- Fiscal Stewardship, Scalability, and Sustainability-much easier to manage two centers than three

What Educational Master Plan objective does the Garden Grove Lab Center support? Select all that apply

- Increase student success, retention, and persistence across all instructional delivery modalities with emphasis in distance education.
- Provide universal access to student service and support programs.
- Strengthen post-Coastline outcomes (e.g., transfer to Universities and Health Care Programs).
- Explore and enter new fields of study (e.g Health Science Certificate, ADTs in the Sciences).
- Foster and sustain industry connections and expand external funding sources (e.g., STEM grants, Hoag Scholars Program) to facilitate programmatic advancement.
- Strengthen community engagement (e.g., student life, alumni relations, and academic alliances).
- Maintain the College's Asian American and Native American Pacific Islander Serving Institution (AANAPISI) designation and pursue becoming a designated Hispanic Serving Institution (HSI).

What evidence supports the labs at the Garden Grove Center? Select all that apply

- Internal Research (Student achievement, program performance)

TIMELINE: 3-5 years

CADAVER LAB

What college goal does the Cadaver Lab support?

- Student Success, Completion, and Achievement
- Instructional and Programmatic Excellence
- Access and Student Support
- Student Retention and Persistence
- Culture of Evidence, Planning, Innovation, and Change
- Partnerships and Community Engagement
- Fiscal Stewardship, Scalability, and Sustainability

What Educational Master Plan objective does the Cadaver Lab support?

- Strengthen post-Coastline outcomes (e.g., transfer into Health Care fields/schools).
- Explore and enter new fields of study (e.g., Health Care Fields).

What evidence supports this initiative? Select all that apply

- Internal Research (Student requests as a need for entry into certain Health Care schools, specifically occupational therapy; enhance onsite learning)
- Learning Outcome (SLO/PSLO) assessment

TIMELINE: 1-3 years, dependent on funding

Section 4: Technology Planning/Equipment/Consumables/Service Contracts Planning

Technology Assessment: Current Needs

Technology is utilized in our Cell and Molecular Biology, Diversity of Organisms, Microbiology, Physiology and Work-Study Programs. Current needs are

1. Statistical Analysis Package-under $1000; allows students to analyze research projects.
2. 3D Printer-$3000-allows students to create prosthetic limbs and models; can be shared with Art Department.

Equipment Assessment: Current Needs

Equipment is heavily needed for our Microbiology program. Current needs:

1. Peristaltic Pump-$3200-allow us to prepare microbiological cultures and decrease the need for constant pipetting.
2. -80 degree freezer-$12,000-allow us to decrease costs of constantly purchasing and preparing microbiological material.
3. Ice Machine-$1,000, Garden Grove, Microbiology and Chemistry labs, to run exiperiments
4. Heat block, Garden Grove Center, $TBD, for Cell and Molecular Biology

Consumables Assessment: Current Needs

Microbiology - GGC	$	10,295.49
Microbiology - NBC	$	22,960.89
Biology	$	3,120.33
Anatomy & Physiology	$	28,930.55
Service Contracts	$	6,700.00
Biology Total	$	72,007.26

Additional: Current Needs

1. Laundry service for microbiology lab coats-cost TBD
2. 4 additional Microscopes for Biology labs- $5000
3. Water chemistry kits (BIOL185/292, MRSC100L)
4. Skulls-6 for Le-Jao
5. Heart models, large-2 for Le-Jao

Forward Strategy

What college goal does Technology Planning/Equipment/Consumables/Service Contracts Planning support? Select one

- Student Success, Completion, and Achievement
- Instructional and Programmatic Excellence
- Access and Student Support
- Student Retention and Persistence
- Fiscal Stewardship, Scalability, and Sustainability

What Educational Master Plan objective does Technology Planning/Equipment/Consumables/Service Contracts Planning support? Select all that apply

- Increase student success, retention, and persistence across all instructional delivery modalities with emphasis in distance education.
- Provide universal access to student service and support programs.
- Strengthen post-Coastline outcomes (e.g., transfer, job placement).
- Explore and enter new fields of study (e.g., new programs, bachelor's degrees).
- Foster and sustain industry connections and expand external funding sources (e.g., grants, contracts, and business development opportunities) to facilitate programmatic advancement.
- Strengthen community engagement (e.g., student life, alumni relations, industry and academic alliances).
- Maintain the College's Asian American and Native American Pacific Islander Serving Institution (AANAPISI) designation and pursue becoming a designated Hispanic Serving Institution (HSI).

What evidence supports Technology Planning/Equipment/Consumables/Service Contracts Planning? Select all that apply

- Internal Research (Student achievement, program performance)
- External Research (Academic literature, market assessment, audit findings, compliance mandates-See Attachment on Job Analysis)

2017-2018

Physical Sciences:
Astronomy, Chemistry, Geology, and Physics

Table of Contents

Executive Summary

The Sciences were split into two separate programs in 2017: The Life Sciences (*Biology, Ecology and Marine Science*) and the Physical Sciences (*Astronomy, Chemistry, Geology and Physics*). This report will focus on the Physical Sciences.

The Physical Sciences (*Astronomy, Chemistry, Geology and Physics*) currently have three FT faculty to cover four distinct disciplines: Ted Marcus and Jean Dupon in Chemistry and David Devine in Astronomy/Physics. Debbie Secord was responsible for Geology (and Gerentology), however she retired at the end of the 2016-2017 academic year after nearly forty years of valuable service.

The Physical Sciences enrollments and FTEs have grown significantly over the last four years, especially in the fields of Chemistry and Astronomy. This is clearly shown in the following table that is based on data taken from the Coastline Department of Institutional Research, Effectiveness and Planning.

Physical Sciences Growth: 2012 - 2016

Subject	Census 2012-2013	Census 2015-2016	Census Increase	FTEs 2012-2013	FTEs 2015-2016	FTEs Increase
ASTR	659	1258	91%	26	82	315%
CHEM	1275	1551	22%	137	249	82%
GEOL	1425	1701	19%	91	138	50%
PHYS	425	460	8%	32	39	12%
Total	3784	4970	**31%**	286	510	**78%**

For reference, Coastline's increase in Census during this period was 16% and Coastline's growth in FTEs during this period was 28%. The growth in Physical Sciences clearly outstrips the growth at Coastline during the last four years.

In order to continue to grow in the quantity and quality of its offerings and to take better advantage of the Newport Beach Center, it is imperative that the Physical Sciences add two new FT faculty over the next 1-2 years, one in Geology to replace Debbie Secord, and one in Physics.

We also anticipate that the lab space at GGC and NBC will fill within the next 2-3 years. If nothing is done, this will stunt the growth of all STEM related fields at GGC and NBC. In order to alleviate this, we propose to identify under-utilized rooms at GGC and NBC for conversion into labs suitable for Chemistry and Physics. For example, the computer rooms 315 and 316 at NBC are rarely used, and would be more effective if they were renovated into a single lab that would serve Chemistry and Physics. It should be noted all Physics labs are currently run in NBC 117, which was designed to be a dance studio.

The Life Sciences and the Physical Sciences were hampered by a lack of sufficient Instructional Lab Associates for most of the last four years. This resulted in some delays in course offerings due to a lack of lab support, and was only partially remedied by Dr. Devine serving as the "Lab Tech" for Astronomy and Physics during 2012-2017. This situation was partially remedied by the hiring of Crystal Eggers in Fall 2017. We hope to avoid similar issues in the future by maintaining a minimum of 1 FT Lab Associate for the Physical Sciences, and 1-2 FT Lab Associates for the Life Sciences.

Section 1: Program Planning:

Mission Statement

The Physical Sciences prepare students for careers in STEM and healthcare.

Overview by Discipline (*Astronomy, Chemistry, Geology and Physics*)

Astronomy

- Faculty: 1 FT (*David Devine*) and 1 PT (*Mahbub Khan*).
- Current Offerings: ASTR100: Introduction to Astronomy (Online, Onsite, Telecourse) and ASTR100L: Astronomy Lab (Onsite)
- Future Offerings: ASTR102 (Stellar Astronomy) and ASTR103 (Cosmology). These courses are "on the books" but have never been taught at Coastline. Devine's PhD is in Astrophysics, and he would like to offer these courses on a rotating basis with our sister colleges, as per a suggestion by Nick Contopolous (OCC Astronomy).
- Degrees or Certificates: No Astronomy certificates or degrees are planned, for the simple reason that undergraduates who are interested in pursuing a career in Astronomy will usually major in Physics.
- Students Served: Most students take ASTR100 and ASTR100L to satisfy GE science and science lab requirements.
- Future Plans: Continue the rapid growth of Astronomy by offering more online sections of ASTR100 and by increasing the number of onsite students taking ASTR100 and ASTR100 Lab at NBC.

Chemistry

- Faculty: 2 FT (*Ted Marcus and Jean Dupon*) and 8 PT (*Rayya Bourche, Michelle Giron, Afaf Gundy, Ken Ostrowski, Mohammad Shahin, Vinh Tran, Mandana Villena-Visi, and Edward Wen*).
- Current Offerings: CHEM 110: Introduction to Chemistry (Online, Onsite, Hybrid), CHEM 130: Preparation for General Chemistry (Onsite, Hybrid), CHEM140: Survey of Chemistry and Physics (Online), CHEM 180/180L: General Chemistry A (Onsite, Hybrid), CHEM 185/185L: General Chemistry B (Onsite, Hybrid), CHEM220/220L: Organic Chemistry A (Onsite), CHEM225/225L: Organic Chemistry B (Onsite).
- Degrees and Certificates: ADT Chemistry is in the final stages of preparation, and awaiting State approval.
- Students Served: Chemistry serves a wide variety of non-STEM and STEM majors. Students who are non-science majors will take CHEM 110 or CHEM 130. Students who are preparing to be K-8 teachers will take CHEM 140, which is cross-listed as PHYS140. Students who are preparing to major in STEM fields will take CHEM 180 and CHEM185, while those who wish to focus on Biology related fields take CHEM 220 and 225.

- **Future Plans:** In order to maintain the rapid growth that chemistry has experienced over the last four years, we will need additional lab space at NBC within the next 3-5 years. Rooms 315 and 316 are currently under-utilized as computer labs, and should be converted into labs that can serve Chemistry and Physics (the current Physics lab is in a room that was designed to be a dance studio).

Geology

- **Faculty**: 0 FT and 5 PT (*Roberto Falero, John McNamara, Kelly Ruppert, Kathryn Schubel, and Curtis Williams*).
- **Current Offerings**: GEOL 105: General Geology (Online, Hybrid, Telecourse), GEOL 105L: Geology Lab (Online, Onsite), GEOL 106: Earth Sciences for Teachers, GEOL121: Environmental Geology (Online), GEOL 185: Historical Geology (Online), GEOL 185L: Historical Geology Lab (Online)
- **Students Served**: Most students take Geology to fulfill a GE science or science lab requirement.
- **Future Plans:** Debbie Secord built the Geology program at Coastline, especially the online offerings. Her unexpected retirement at the end of the 2016-2017 school year has left a gap that needs to be filled as soon as possible to maintain the quality of the online course content and the rapid growth that Geology has experienced over the last four years.

Physics

- **Faculty**: 1 FT (*David Devine*) and 2 PT (*Mahbub Khan, Ken Ostrowski*).
- **Current Offerings**: PHYS110: Conceptual Physics (Online), PHYS 110L: Conceptual Physics Lab (Online), PHYS120: Algebra Based Physics: Mechanics (Online Lecture, Onsite Lab), PHYS125: Algebra Based Physics: Electricity and Magnetism (Online Lecture, Onsite Lab), PHYS140: Survey of Chemistry and Physics (Online), PHYS185: Calculus Based Physics: Mechanics (Onsite).
- **Future Offerings**: PHYS280: Calculus Based Physics: Electricity and Magnetism (Onsite), PHYS285: Calculus Based Physics: Modern (Onsite, Hybrid, Online) These courses are "on the books" but have never been taught at Coastline. They have C-ID approval and are awaiting State approval for recent updates to the hours/units to satisfy the Carnegie standards.
- **Degrees or Certificates:** An ADT in Physics has been approved by the State.
- **Students Served**: PHYS110/110L satisfy GE science and science lab requirements. PHYS120/125 are required for students interested in Health related fields such as Pas (Physicians Assistant) and PT (Physical Therapists). The Calculus based Phys 185/280/285 series serves all STEM majors.
- **Future Plans:** The past five years have been devoted to building up the Physics curriculum, which was essentially non-existent when Devine was hired in 2012. Now that the curriculum for Physics has been created, it is time to focus on growth. This will require the addition of a FT Physics faculty within the next 1-2 years.

Internal Analysis: Astronomy

ENROLLMENT AND FTES:

The number of enrollments in Astronomy courses in 2015-2016 showed **a slight increase (1.0% to 4.9%)** from 2014-2015 and **a substantial increase (>= 10.0%)** in comparison with the number of enrollments in 2013-2014.

The FTES in Astronomy credit courses in 2015-2016 showed **a slight increase (1.0% to 4.9%)** from 2014-2015 and **a substantial increase (>= 10.0%)** in with in comparison with FTES in 2013-2014.

EFFICIENCY (NUMBER OF SECTIONS, FILL RATE, FTEF/30, WSCH/FTEF):

The number of sections in Astronomy courses in 2015-2016 showed **minimal to no difference** from 2014-2015 and **a substantial increase (>= 10.0%)** in comparison with the number of sections in 2013-2014.

The fill rate in Astronomy courses in 2015-2016 showed **a slight decrease (-1.0% to -4.9%)** from 2014-2015 and **a substantial increase (>= 10.0%)** in comparison with the fill rate in 2013-2014.

The FTEF/30 ratio in Astronomy courses in 2015-2016 showed **minimal to no difference** from 2014-2015 and **a substantial increase (>= 10.0%)** in comparison with the FTEF/30 ratio in 2013-2014.

The WSCH/FTEF ratio in Astronomy courses in 2015-2016 showed **a slight increase (1.0% to 4.9%)** from 2014-2015 and **a substantial increase (>= 10.0%)** in comparison with the WSCH/FTEF ratio in 2013-2014.

COURSE SUCCESS RATE:

The course success rate in Astronomy courses in 2015-2016 showed **a moderate increase (5.0% to 9.9%)** from 2014-2015 and **a substantial increase (>= 10.0%)** in comparison with the course success rate in 2013-2014. The course success rate from 2015-2016 showed **minimal to no rate difference** than the college success average* (*66.6%*) and showed **a moderately higher rate (5.0% to 9.9%)** than the institutional-set standard* (*56.6%*) for credit course success.

TERM RETENTION RATE:

The term retention rate in Astronomy courses in 2015-2016 showed **a moderate increase (5.0% to 9.9%)** from 2014-2015 and **a substantial increase (>= 10.0%)** in comparison with the term retention rate in 2013-2014. The term retention rate from 2015-2016 showed **a slightly lower rate (-1.0% to -4.9%)** than the college retention average* (*83.3%*) and showed **a moderately higher rate (5.0% to 9.9%)** than the institutional-set standard* term retention (*70.8%*) for credit courses.

AWARDS (DEGREES AND CERTIFICATES):

The number of degrees in Astronomy in 2015-2016 showed **no previous data** from 2014-2015 and showed **no previous data** in comparison with the number of degrees awarded in 2013-2014.

The number of certificates in Astronomy in 2015-2016 showed **no previous data** from 2014-2015 and showed **no previous data** in comparison with the number of certificates awarded in 2013-2014.

MODALITY:

In 2015-2016 **none (0%)** of the **Astronomy** courses were offered as **cable** courses, while **none (0%)** of the courses were offered in **correspondence**, **less than a quarter (1% to 24%)** of the courses offered were **hybrid**, **close to half (25% to 50%)** of the courses offered were **online**, **none (0%)** of the courses offered were **self-paced**, **more than half (50% to 74%)** of the courses offered were **telecourse**, and **less than a quarter (1% to 24%)** of the courses were offered in **traditional in-person** setting.

GENDER

In 2015-16 there **was NOT a disproportional impact** in **Astronomy** course success rates for *female students*; and there **was NOT a disproportional impact** in **Astronomy** course success rates for *male students*.

AGE GROUPS

In 2015-2016 there **was NOT a disproportional impact** in **Astronomy** course success rates for students *less than 20 years old*; there **was NOT a disproportional impact** in **Astronomy** course success rates for students *20 to 24 years old*; there **was NOT a disproportional impact** in **Astronomy** course success rates for students *25 to 29 years old*; there **was NOT a disproportional impact** in **Astronomy** course success rates for students *30 to 34 years old*; there **was NOT a disproportional impact** in **Astronomy** course success rates for students *35 to 39 years old*; there **was NOT a disproportional impact** in **Astronomy** course success rates for students *40 to 49 years old*; there **was NOT a disproportional impact** in **Astronomy** course success rates for students *50+ years old*.

RACE/ETHNICITY

In 2015-2016 there **was NOT a disproportional impact** in **Astronomy** course success rates for *African American* students; there **was a disproportional impact** in **Astronomy** course success rates for *American Indian* students; there **was NOT a disproportional impact** in **Astronomy** course success rates for *Asian/Pacific Islander* students; there **was NOT a disproportional impact** in **Astronomy** course success rates for *Hispanic/Latino* students; there **was NOT a disproportional impact** in **Astronomy** course success rates for *White/Non-Hispanic* students; there **was a disproportional impact** in **Astronomy** course success rates for *Multi-race* students; there **was NOT a disproportional impact** in **Astronomy** course success rates for students who have *declined to state their race/ethnic identity*.

> *Note: Disproportional Impact is calculated via the Proportionality Index Method with an 80% threshold for negative impact. This method is a measure of representational equity of each subgroup to its initial proportionality at the beginning of the term. Proportionality Index Method compares the demographic characteristics of those who successfully completed the course to the demographics characteristics of the same group that enrolled in the course at the beginning of the term. Proportions of less than 80% are flagged as experiencing disproportional impact.*

Implications of Change: Astronomy

As highlighted in the *Executive Summary*, Astronomy has seen a profound growth since Devine was hired in 2012 as the FT Instructor for Astronomy (and Physics). The census enrollment and FTEs have nearly tripled since 2012, due in a large part to the creation and revision of online and onsite content for ASTR100 and ASTR100L. Devine has also served as the "Astronomy and Physics Lab Technician" during this time, where his duties have included ordering and maintaining all equipment related to Astronomy and Physics.

- It is no longer feasible for Devine to grow Astronomy and Physics while also serving as the "lab technician" for both disciplines.

- In order to continue the growth in Astronomy and Physics, it is essential that we hire an FT for Physics in the next 1-2 years to allow Devine to focus on Astronomy (his PhD is in Astrophysics).

Academic Year	2013-14	2014-15	2015-16
CENSUS Enrollment	570	895	916
FTES	52.0	82.0	83.9
FTEF30	0.9	1.1	1.1
WSCH/FTEF	939	1,239	1,255
Sections	7.0	8.0	8.0
Fill Rate	69.5%	82.1%	79.3%
DEGREES AND CERTIFICATES			
Associate Degrees	0	0	0
Certificates	0	0	0
STUDENT DEMOGRAPHICS			
GRADED Enrollment*	566	883	935
GENDER			
Female	30.7%	23.7%	21.4%
Male	68.9%	75.4%	77.4%
Unknown	0.4%	0.9%	1.2%
AGE at TERM			
Less than 19	7.4%	7.4%	6.0%
20 to 24	26.1%	19.9%	19.5%
25 to 29	18.7%	15.3%	16.5%
30 to 34	14.1%	16.6%	17.9%
35 to 39	8.8%	12.2%	12.8%
40 to 49	15.2%	18.6%	17.4%
50 and Older	9.5%	10.0%	9.9%
RACE/ETHNICITY			
African American	11.3%	13.3%	10.9%
American Indian	1.4%	1.7%	1.2%
Asian/Pacific Islander	7.2%	8.9%	10.6%
Hispanic/Latino	30.9%	32.2%	32.7%
2 or More Race	4.8%	5.2%	5.9%
White	42.0%	37.4%	37.0%
Unknown	2.3%	1.4%	1.8%
INSTRUCTIONAL MODALITY			
Cable			
Correspondence			
Hybrid		6.1%	1.1%
Online	41.9%	27.6%	28.2%
Self-Paced			
Telecourse	54.2%	66.3%	69.3%
Traditional	3.9%	0.0%	1.4%
SUCCESS & RETENTION			
Course Success (A, B, C, P)	51.1%	60.9%	66.3%
Course Retention (A-F, P, NP)	71.3%	75.5%	79.4%

** Note: **GRADED ENROLLMENTS** excludes Zero Unit Lab enrollments since there is only 1 Grade issued across 2 or more CRNs.*

Academic Year	2013-14	2014-15	2015-16
-Overall Success Rate	51.2%	61.9%	66.3%
-Overall Retention Rate	71.2%	75.5%	79.4%

STUDENT DEMOGRAPHICS			
GENDER			
Female	174	209	198
Male	390	666	724
Unknown	2	8	10
Success Rate			
- Female	39.1%	54.5%	58.6%
- Male	56.7%	64.7%	68.4%
- Unknown	50.0%	25.0%	70.0%
Retention Rate			
- Female	61.5%	69.9%	75.8%
- Male	75.4%	77.8%	80.2%
- Unknown	100.0%	37.5%	90.0%

Academic Year	2013-14	2014-15	2015-16
-Overall Success Rate	51.2%	61.9%	66.3%
-Overall Retention Rate	71.2%	75.5%	79.4%

AGE at TERM			
Less than 19	42	65	56
20 to 24	148	176	181
25 to 29	106	135	154
30 to 34	80	147	165
35 to 39	50	108	120
40 to 49	86	164	163
50 and Older	54	88	93

Success Rate			
Less than 19	31.0%	50.8%	62.5%
20 to 24	39.2%	48.3%	55.8%
25 to 29	51.9%	57.0%	62.3%
30 to 34	56.3%	73.5%	66.1%
35 to 39	66.0%	73.1%	68.3%
40 to 49	61.6%	68.3%	79.1%
50 and Older	61.1%	60.2%	71.0%

Retention Rate			
Less than 19	59.5%	73.8%	76.8%
20 to 24	64.9%	71.6%	76.2%
25 to 29	70.8%	69.6%	72.1%
30 to 34	76.3%	81.0%	81.2%
35 to 39	84.0%	81.5%	82.5%
40 to 49	72.1%	79.3%	87.1%
50 and Older	77.8%	70.5%	78.5%

Academic Year	2013-14	2014-15	2015-16
-Overall Success Rate	51.2%	61.9%	66.3%
-Overall Retention Rate	71.2%	75.5%	79.4%

RACE/ETHNICITY			
African American	176	285	306
American Indian	41	79	98
Asian	64	116	100
Hispanic/Latino	26	47	57
Pacific Islander	12	11	16
White	239	330	344
Unknown	8	15	11

Success Rate			
African American	48.3%	60.7%	64.1%
American Indian	43.9%	59.5%	70.4%
Asian	35.9%	54.3%	60.0%
Hispanic/Latino	46.2%	55.3%	52.6%
Pacific Islander	33.3%	72.7%	81.3%
White	61.5%	66.4%	71.2%
Unknown	12.5%	73.3%	45.5%

Retention Rate			
African American	70.5%	78.2%	76.8%
American Indian	61.0%	75.9%	78.6%
Asian	68.8%	65.5%	79.0%
Hispanic/Latino	80.8%	68.1%	73.7%
Pacific Islander	50.0%	90.9%	93.8%
White	75.3%	77.0%	82.3%
Unknown	37.5%	80.0%	81.8%

Academic Year	2013-14	2014-15	2015-16
-Overall Success Rate	51.2%	61.9%	66.3%
-Overall Retention Rate	71.2%	75.5%	79.4%

INSTRUCTIONAL MODALITY			
Cable			
Correspondence			
Hybrid	0	54	10
Online	237	244	262
Self-Paced			
Telecourse	307	585	647
Traditional	22	0	13

Success Rate

Cable			
Correspondence			
Hybrid		44.4%	70.0%
Online	40.1%	51.2%	56.1%
Self-Paced			
Telecourse	60.3%	68.0%	70.3%
Traditional	45.5%	0.0%	69.2%

Retention Rate

Cable			
Correspondence			
Hybrid		64.8%	90.0%
Online	61.2%	64.8%	73.7%
Self-Paced			
Telecourse	78.8%	81.0%	81.8%
Traditional	72.7%	0.0%	69.2%

Internal Analysis: Chemistry

ENROLLMENT AND FTES:

The number of enrollments in Chemistry courses in 2015-2016 showed **a substantial increase (>= 10.0%)** from 2014-2015 and **a moderate decrease (-5.0% to -9.9%)** in comparison with the number of enrollments in 2013-2014.

The FTES in Chemistry credit courses in 2015-2016 showed **a substantial increase (>= 10.0%)** from 2014-2015 and **a substantial increase (>= 10.0%)** in with in comparison with FTES in 2013-2014.

EFFICIENCY (NUMBER OF SECTIONS, FILL RATE, FTEF/30, WSCH/FTEF):

The number of sections in Chemistry courses in 2015-2016 showed **a moderate increase (5.0% to 9.9%)** from 2014-2015 and **minimal to no difference** in comparison with the number of sections in 2013-2014.

The fill rate in Chemistry courses in 2015-2016 showed **minimal to no difference** from 2014-2015 and **a slight decrease (-1.0% to -4.9%)** in comparison with the fill rate in 2013-2014.

The FTEF/30 ratio in Chemistry courses in 2015-2016 showed **a substantial increase (>= 10.0%)** from 2014-2015 and **a substantial increase (>= 10.0%)** in comparison with the FTEF/30 ratio in 2013-2014.

The WSCH/FTEF ratio in Chemistry courses in 2015-2016 showed **a slight increase (1.0% to 4.9%)** from 2014-2015 and **a slight increase (1.0% to 4.9%)** in comparison with the WSCH/FTEF ratio in 2013-2014.

COURSE SUCCESS RATE:

The course success rate in Chemistry courses in 2015-2016 showed **a slight decrease (-1.0% to -4.9%)** from 2014-2015 and **a moderate decrease (-5.0% to -9.9%)** in comparison with the course success rate in 2013-2014. The course success rate from 2015-2016 showed **a substantially higher rate (>= 10.0%)** than the college success average* (*66.6%*) and showed **a substantially higher rate (>= 10.0%)** than the institutional-set standard* (*56.6%*) for credit course success.

TERM RETENTION RATE:

The term retention rate in Chemistry courses in 2015-2016 showed **a slight decrease (-1.0% to -4.9%)** from 2014-2015 and **a slight decrease (-1.0% to -4.9%)** in comparison with the term retention rate in 2013-2014. The term retention rate from 2015-2016 showed **a slightly higher rate (1.0% to 4.9%)** than the college retention average* (*83.3%*) and showed **a substantially higher rate (>= 10.0%)** than the institutional-set standard* term retention (*70.8%*) for credit courses.

AWARDS (DEGREES AND CERTIFICATES):

The number of degrees in Chemistry in 2015-2016 showed **no previous data** from 2014-2015 and showed **no previous data** in comparison with the number of degrees awarded in 2013-2014.

The number of certificates in Chemistry in 2015-2016 showed **no previous data** from 2014-2015 and showed **no previous data** in comparison with the number of certificates awarded in 2013-2014.

MODALITY:

In 2015-2016 **none (0%)** of the **Chemistry** courses were offered as **cable** courses, while **none (0%)** of the courses were offered in **correspondence**, **less than a quarter (1% to 24%)** of the courses offered were **hybrid**, **close to half (25% to 50%)** of the courses offered were **online**, **none (0%)** of the courses offered were **self-**

paced, none (0%) of the courses offered were telecourse, and more than half (50% to 74%) of the courses were offered in traditional in-person setting.

GENDER

In 2015-16 there was NOT a disproportional impact in Chemistry course success rates for *female students*; and there was NOT a disproportional impact in Chemistry course success rates for *male students*.

AGE GROUPS

In 2015-2016 there was NOT a disproportional impact in Chemistry course success rates for students *less than 20 years old*; there was NOT a disproportional impact in Chemistry course success rates for students *20 to 24 years old*; there was NOT a disproportional impact in Chemistry course success rates for students *25 to 29 years old*; there was NOT a disproportional impact in Chemistry course success rates for students *30 to 34 years old*; there was NOT a disproportional impact in Chemistry course success rates for students *35 to 39 years old*; there was NOT a disproportional impact in Chemistry course success rates for students *40 to 49 years old*; there was NOT a disproportional impact in Chemistry course success rates for students *50+ years old*.

RACE/ETHNICITY

In 2015-2016 there was NOT a disproportional impact in Chemistry course success rates for *African American* students; there was NOT a disproportional impact in Chemistry course success rates for *American Indian* students; there was NOT a disproportional impact in Chemistry course success rates for *Asian/Pacific Islander* students; there was NOT a disproportional impact in Chemistry course success rates for *Hispanic/Latino* students; there was NOT a disproportional impact in Chemistry course success rates for *White/Non-Hispanic* students; there was NOT a disproportional impact in Chemistry course success rates for *Multi-race* students; there was NOT a disproportional impact in Chemistry course success rates for students who have *declined to state their race/ethnic identity*.

Note: Disproportional Impact is calculated via the Proportionality Index Method with an 80% threshold for negative impact. This method is a measure of representational equity of each subgroup to its initial proportionality at the beginning of the term. Proportionality Index Method compares the demographic characteristics of those who successfully completed the course to the demographics characteristics of the same group that enrolled in the course at the beginning of the term. Proportions of less than 80% are flagged as experiencing disproportional impact.

Implications of Change: Chemistry

As highlighted in the *Executive Summary*, enrollment in Chemistry grew by 22% from 2012 to 2016, and the number of FTEs grew by 82% during that time. These increases can be partially explained by the opening of the Newport Beach Center with its associated labs and the hiring of FT Chem instructor Jean Dupon in 2014.

Onsite Chemistry classes are split between Garden Grove and Newport Beach. There are no lab facilities at Garden Grove for Organic Chemistry, which is taught at Newport Beach.

Chemistry (and Biology) were severely hindered during this time of rapid growth by a lack of sufficient Instructional Lab Associates. This issue has been partially remedied by the hiring of Crystin Eggers as a FT Instructional Lab Associate in 2017. Future growth in all of the Sciences will depend critically on maintaining a sufficient number of FT Instructional Lab Associates (a minimum of 1 FT at Garden Grove and 1 FT at Newport Beach).

Academic Year	2013-14	2014-15	2015-16
CENSUS Enrollment	1,574	1,343	1,479
FTES	192.0	218.0	248.9
FTEF30	6.6	7.5	8.3
WSCH/FTEF	477	478	492
Sections	55.5	52.0	55.0
Fill Rate	87.8%	87.4%	86.9%
DEGREES AND CERTIFICATES			
Associate Degrees	0	0	0
Certificates	0	0	0
STUDENT DEMOGRAPHICS			
GRADED Enrollment*	1,349	1,273	1,487
GENDER			
Female	57.4%	59.0%	59.0%
Male	41.7%	38.9%	39.8%
Unknown	1.0%	2.1%	1.2%
AGE at TERM			
Less than 19	15.6%	14.1%	13.4%
20 to 24	39.5%	41.7%	42.5%
25 to 29	25.7%	21.7%	23.2%
30 to 34	10.2%	11.9%	10.3%
35 to 39	4.0%	5.2%	5.4%
40 to 49	3.4%	3.5%	3.0%
50 and Older	1.6%	2.0%	2.1%
RACE/ETHNICITY			
African American	2.5%	2.5%	2.0%
American Indian	0.1%	0.0%	0.2%
Asian/Pacific Islander	48.8%	46.0%	48.3%
Hispanic/Latino	16.6%	17.2%	16.2%
2 or More Race	2.4%	3.7%	4.1%
White	26.2%	28.9%	27.3%
Unknown	3.3%	1.7%	2.3%
INSTRUCTIONAL MODALITY			
Cable			
Correspondence			
Hybrid		9.0%	9.1%
Online	29.8%	22.2%	25.6%
Self-Paced			
Telecourse			
Traditional	70.2%	68.8%	65.2%
SUCCESS & RETENTION			
Course Success (A, B, C, P)	82.8%	82.3%	78.3%
Course Retention (A-F, P, NP)	88.4%	89.3%	86.8%

** Note: **GRADED ENROLLMENTS** excludes Zero Unit Lab enrollments since there is only 1 Grade issued across 2 or more CRNs.*

Academic Year	2013-14	2014-15	2015-16
GRADED ENROLLMENT	1,349	1,273	1,487
-Overall Success Rate	82.8%	82.6%	78.3%
-Overall Retention Rate	88.4%	89.5%	86.8%

STUDENT DEMOGRAPHICS			
GENDER			
Female	774	751	876
Male	562	500	593
Unknown	13	22	18
Success Rate			
- Female	81.9%	81.0%	77.6%
- Male	84.0%	84.8%	80.3%
- Unknown	84.6%	86.4%	50.0%
Retention Rate			
- Female	88.2%	87.9%	85.4%
- Male	88.3%	91.6%	89.5%
- Unknown	100.0%	95.5%	61.1%

Academic Year	2013-14	2014-15	2015-16
GRADED ENROLLMENT	1,349	1,273	1,487
-Overall Success Rate	82.8%	82.6%	78.3%
-Overall Retention Rate	88.4%	89.5%	86.8%

AGE at TERM			
Less than 19	210	179	200
20 to 24	533	531	631
25 to 29	347	276	346
30 to 34	137	151	153
35 to 39	54	66	81
40 to 49	46	45	45
50 and Older	22	25	31

Success Rate

Less than 19	82.9%	82.1%	78.0%
20 to 24	85.2%	84.2%	78.6%
25 to 29	81.6%	78.6%	74.9%
30 to 34	82.5%	84.8%	79.7%
35 to 39	72.2%	86.4%	86.4%
40 to 49	78.3%	75.6%	82.2%
50 and Older	81.8%	84.0%	80.6%

Retention Rate

Less than 19	89.5%	93.3%	92.0%
20 to 24	90.1%	90.0%	87.5%
25 to 29	86.5%	85.1%	80.9%
30 to 34	89.8%	90.7%	85.0%
35 to 39	74.1%	90.9%	91.4%
40 to 49	91.3%	82.2%	91.1%
50 and Older	86.4%	100.0%	93.5%

Academic Year	2013-14	2014-15	2015-16
-Overall Success Rate	82.8%	82.6%	78.3%
-Overall Retention Rate	88.4%	89.5%	86.8%

RACE/ETHNICITY			
African American	223	219	241
American Indian	658	587	718
Asian	37	36	29
Hispanic/Latino	34	44	60
Pacific Islander	43	20	29
White	353	367	407
Unknown	1	0	3

Success Rate			
African American	80.7%	74.4%	71.4%
American Indian	83.6%	85.2%	80.5%
Asian	70.3%	75.0%	69.0%
Hispanic/Latino	79.4%	79.5%	73.3%
Pacific Islander	90.7%	95.0%	86.2%
White	83.3%	83.7%	79.6%
Unknown	100.0%	0.0%	66.7%

Retention Rate			
African American	90.1%	87.7%	84.2%
American Indian	86.9%	89.9%	87.5%
Asian	89.2%	91.7%	89.7%
Hispanic/Latino	82.4%	86.4%	88.3%
Pacific Islander	95.3%	100.0%	86.2%
White	89.5%	89.4%	86.7%
Unknown	100.0%	0.0%	66.7%

Academic Year	2013-14	2014-15	2015-16
-Overall Success Rate	82.8%	82.6%	78.3%
-Overall Retention Rate	88.4%	89.5%	86.8%

INSTRUCTIONAL MODALITY			
Cable	0	0	0
Correspondence	0	0	0
Hybrid	0	115	136
Online	402	282	380
Self-Paced	0	0	0
Telecourse	0	0	0
Traditional	947	876	971

Success Rate

Cable			
Correspondence			
Hybrid		78.3%	84.6%
Online	79.1%	81.6%	73.7%
Self-Paced			
Telecourse			
Traditional	84.4%	83.4%	79.3%

Retention Rate

Cable			
Correspondence			
Hybrid		93.0%	87.5%
Online	88.8%	90.8%	86.1%
Self-Paced			
Telecourse			
Traditional	88.2%	88.6%	86.9%

Internal Analysis: Geology

ENROLLMENT AND FTES:

The number of enrollments in Geology courses in 2015-2016 showed **a slight increase (1.0% to 4.9%)** from 2014-2015 and **a substantial increase (>= 10.0%)** in comparison with the number of enrollments in 2013-2014.

The FTES in Geology credit courses in 2015-2016 showed **a slight increase (1.0% to 4.9%)** from 2014-2015 and **a substantial increase (>= 10.0%)** in with in comparison with FTES in 2013-2014.

EFFICIENCY (NUMBER OF SECTIONS, FILL RATE, FTEF/30, WSCH/FTEF):

The number of sections in Geology courses in 2015-2016 showed **a substantial increase (>= 10.0%)** from 2014-2015 and **a substantial increase (>= 10.0%)** in comparison with the number of sections in 2013-2014.

The fill rate in Geology courses in 2015-2016 showed **a moderate decrease (-5.0% to -9.9%)** from 2014-2015 and **a moderate decrease (-5.0% to -9.9%)** in comparison with the fill rate in 2013-2014.

The FTEF/30 ratio in Geology courses in 2015-2016 showed **a substantial increase (>= 10.0%)** from 2014-2015 and **a substantial increase (>= 10.0%)** in comparison with the FTEF/30 ratio in 2013-2014.

The WSCH/FTEF ratio in Geology courses in 2015-2016 showed **a moderate decrease (-5.0% to -9.9%)** from 2014-2015 and **a substantial decrease (>= -10.0%)** in comparison with the WSCH/FTEF ratio in 2013-2014.

COURSE SUCCESS RATE:

The course success rate in Geology courses in 2015-2016 showed **a slight decrease (-1.0% to -4.9%)** from 2014-2015 and **minimal to no difference** in comparison with the course success rate in 2013-2014. The course success rate from 2015-2016 showed **a slightly higher rate (1.0% to 4.9%)** than the college success average* (*66.6%*) and showed **a substantially higher rate (>= 10.0%)** than the institutional-set standard* (*56.6%*) for credit course success.

TERM RETENTION RATE:

The term retention rate in Geology courses in 2015-2016 showed **a slight decrease (-1.0% to -4.9%)** from 2014-2015 and **minimal to no difference** in comparison with the term retention rate in 2013-2014. The term retention rate from 2015-2016 showed **minimal to no rate difference** than the college retention average* (*83.3%*) and showed **a substantially higher rate (>= 10.0%)** than the institutional-set standard* term retention (*70.8%*) for credit courses.

AWARDS (DEGREES AND CERTIFICATES):

The number of degrees in Geology in 2015-2016 showed **no previous data** from 2014-2015 and showed **no previous data** in comparison with the number of degrees awarded in 2013-2014.

The number of certificates in Geology in 2015-2016 showed **no previous data** from 2014-2015 and showed **no previous data** in comparison with the number of certificates awarded in 2013-2014.

MODALITY:

In 2015-2016 **none (0%)** of the **Geology** courses were offered as **cable** courses, while **none (0%)** of the courses were offered in **correspondence**, **less than a quarter (1% to 24%)** of the courses offered were **hybrid**, **more than half (50% to 74%)** of the courses offered were **online**, **none (0%)** of the courses offered were **self-paced**, **close to half (25% to 50%)** of the courses offered were **telecourse**, and **less than a quarter (1% to 24%)** of the courses were offered in **traditional in-person** setting.

GENDER

In 2015-16 there **was NOT a disproportional impact** in **Geology** course success rates for *female students*; and there **was NOT a disproportional impact** in **Geology** course success rates for *male students*.

AGE GROUPS

In 2015-2016 there **was NOT a disproportional impact** in **Geology** course success rates for students *less than 20 years old*; there **was NOT a disproportional impact** in **Geology** course success rates for students *20 to 24 years old*; there **was NOT a disproportional impact** in **Geology** course success rates for students *25 to 29 years old*; there **was NOT a disproportional impact** in **Geology** course success rates for students *30 to 34 years old*; there **was NOT a disproportional impact** in **Geology** course success rates for students *35 to 39 years old*; there **was NOT a disproportional impact** in **Geology** course success rates for students *40 to 49 years old*; there **was NOT a disproportional impact** in **Geology** course success rates for students *50+ years old*.

RACE/ETHNICITY

In 2015-2016 there **was a disproportional impact** in **Geology** course success rates for *African American* students; there **was NOT a disproportional impact** in **Geology** course success rates for *American Indian* students; there **was NOT a disproportional impact** in **Geology** course success rates for *Asian/Pacific Islander* students; there **was NOT a disproportional impact** in **Geology** course success rates for *Hispanic/Latino* students; there **was NOT a disproportional impact** in **Geology** course success rates for *White/Non-Hispanic* students; there **was NOT a disproportional impact** in **Geology** course success rates for *Multi-race* students; there **was NOT a disproportional impact** in **Geology** course success rates for students who have *declined to state their race/ethnic identity*.

> *Note: Disproportional Impact is calculated via the Proportionality Index Method with an 80% threshold for negative impact. This method is a measure of representational equity of each subgroup to its initial proportionality at the beginning of the term. Proportionality Index Method compares the demographic characteristics of those who successfully completed the course to the demographics characteristics of the same group that enrolled in the course at the beginning of the term. Proportions of less than 80% are flagged as experiencing disproportional impact.*

Implications of Change: Geology

As highlighted in the *Executive Summary*, Geology enrollment grew by 19% and the number of FTEs grew by 50% during 2012-2016. This growth was due primarily to the work of Debbie Secord, who served as the FT Faculty for Geology (and Gerentology).

The majority of Geology courses are offered online. Debbie Secord did a tremendous job of growing the online content and overseeing its development during her time at Coastline, and her retirement at the end of the 2016-2017 school year has left a profound hole in Geology at Coastline.

- A FT hire in Geology to replace Debbie Secord is essential to the continued success and future growth of Geology at Coastline.

Academic Year	2013-14	2014-15	2015-16
CENSUS Enrollment	1,214	1,428	1,469
FTES	101.0	134.0	138.4
FTEF30	1.9	2.6	3.1
WSCH/FTEF	862	817	738
Sections	17.0	26.0	29.0
Fill Rate	73.8%	75.6%	68.4%
DEGREES AND CERTIFICATES			
Associate Degrees	0	0	0
Certificates	0	0	0
STUDENT DEMOGRAPHICS			
GRADED Enrollment*	1,208	1,421	1,467
GENDER			
Female	41.4%	36.7%	43.2%
Male	57.5%	62.1%	55.3%
Unknown	1.1%	1.2%	1.5%
AGE at TERM			
Less than 19	8.6%	8.5%	9.5%
20 to 24	24.3%	24.8%	27.8%
25 to 29	18.3%	18.6%	15.5%
30 to 34	16.1%	14.4%	13.9%
35 to 39	10.3%	11.3%	9.9%
40 to 49	13.7%	13.9%	16.2%
50 and Older	8.5%	8.5%	7.2%
RACE/ETHNICITY			
African American	10.6%	9.9%	10.5%
American Indian	1.2%	0.8%	1.2%
Asian/Pacific Islander	11.9%	13.7%	12.3%
Hispanic/Latino	27.3%	28.4%	28.5%
2 or More Race	4.0%	4.2%	5.5%
White	41.4%	40.7%	40.3%
Unknown	3.6%	2.3%	1.8%
INSTRUCTIONAL MODALITY			
Cable			
Correspondence			
Hybrid	0.9%	2.3%	2.7%
Online	61.6%	59.3%	61.5%
Self-Paced			
Telecourse	37.5%	38.4%	34.6%
Traditional			1.2%
SUCCESS & RETENTION			
Course Success (A, B, C, P)	69.5%	70.6%	68.8%
Course Retention (A-F, P, NP)	84.9%	86.8%	84.2%

** Note: **GRADED ENROLLMENTS** excludes Zero Unit Lab enrollments since there is only 1 Grade issued across 2 or more CRNs.*

Academic Year	2013-14	2014-15	2015-16
-Overall Success Rate	69.6%	71.3%	68.8%
-Overall Retention Rate	85.0%	87.1%	84.2%

STUDENT DEMOGRAPHICS			
GENDER			
Female	500	522	634
Male	695	882	807
Unknown	13	17	22
Success Rate			
- Female	72.6%	71.8%	74.6%
- Male	67.2%	70.9%	63.9%
- Unknown	84.6%	76.5%	81.8%
Retention Rate			
- Female	87.4%	87.0%	84.5%
- Male	83.0%	87.2%	83.8%
- Unknown	100.0%	82.4%	90.9%

Academic Year	2013-14	2014-15	2015-16
-Overall Success Rate	69.6%	71.3%	68.8%
-Overall Retention Rate	85.0%	87.1%	84.2%

AGE at TERM			
Less than 19	104	121	139
20 to 24	294	353	407
25 to 29	221	265	228
30 to 34	195	204	204
35 to 39	125	160	143
40 to 49	166	197	237
50 and Older	103	121	105

Success Rate			
Less than 19	78.8%	71.9%	81.3%
20 to 24	63.6%	73.7%	70.0%
25 to 29	70.1%	68.7%	61.8%
30 to 34	66.2%	70.1%	65.7%
35 to 39	73.6%	70.6%	59.4%
40 to 49	72.9%	73.6%	73.0%
50 and Older	72.8%	68.6%	72.4%

Retention Rate			
Less than 19	88.5%	83.5%	88.5%
20 to 24	83.0%	86.1%	81.3%
25 to 29	81.9%	88.3%	80.7%
30 to 34	84.1%	87.3%	84.3%
35 to 39	88.8%	87.5%	84.6%
40 to 49	88.0%	87.8%	86.9%
50 and Older	86.4%	88.4%	90.5%

Academic Year	2013-14	2014-15	2015-16
-Overall Success Rate	69.6%	71.3%	68.8%
-Overall Retention Rate	85.0%	87.1%	84.2%

RACE/ETHNICITY			
African American	330	404	416
American Indian	144	195	182
Asian	128	140	154
Hispanic/Latino	48	60	80
Pacific Islander	42	33	24
White	503	578	589
Unknown	13	11	18

Success Rate			
African American	66.7%	75.0%	64.2%
American Indian	73.6%	78.5%	76.9%
Asian	53.9%	49.3%	51.9%
Hispanic/Latino	79.2%	65.0%	70.0%
Pacific Islander	66.7%	60.6%	58.3%
White	74.4%	73.4%	74.5%
Unknown	46.2%	45.5%	61.1%

Retention Rate			
African American	82.4%	89.6%	78.8%
American Indian	84.0%	85.1%	87.9%
Asian	78.9%	77.9%	84.4%
Hispanic/Latino	95.8%	80.0%	77.5%
Pacific Islander	88.1%	78.8%	83.3%
White	87.3%	89.1%	87.9%
Unknown	84.6%	100.0%	77.8%

Academic Year	2013-14	2014-15	2015-16
-Overall Success Rate	69.6%	71.3%	68.8%
-Overall Retention Rate	85.0%	87.1%	84.2%

INSTRUCTIONAL MODALITY			
Cable	0	0	0
Correspondence	0	0	0
Hybrid	11	33	40
Online	744	842	902
Self-Paced	0	0	0
Telecourse	453	546	504
Traditional	0	0	17

Success Rate

Cable			
Correspondence			
Hybrid	90.9%	66.7%	92.5%
Online	70.7%	70.2%	73.3%
Self-Paced			
Telecourse	67.3%	73.3%	58.9%
Traditional			70.6%

Retention Rate

Cable			
Correspondence			
Hybrid	90.9%	81.8%	97.5%
Online	86.2%	85.2%	83.1%
Self-Paced			
Telecourse	83.0%	90.3%	85.3%
Traditional			76.5%

Internal Analysis: Physics

ENROLLMENT AND FTES:

The number of enrollments in Physics courses in 2015-2016 showed **a substantial increase (>= 10.0%)** from 2014-2015 and **a slight increase (1.0% to 4.9%)** in comparison with the number of enrollments in 2013-2014.

The FTES in Physics credit courses in 2015-2016 showed **a substantial increase (>= 10.0%)** from 2014-2015 and **a moderate increase (5.0% to 9.9%)** in with in comparison with FTES in 2013-2014.

EFFICIENCY (NUMBER OF SECTIONS, FILL RATE, FTEF/30, WSCH/FTEF):

The number of sections in Physics courses in 2015-2016 showed **a substantial increase (>= 10.0%)** from 2014-2015 and **a substantial increase (>= 10.0%)** in comparison with the number of sections in 2013-2014.

The fill rate in Physics courses in 2015-2016 showed **a slight decrease (-1.0% to -4.9%)** from 2014-2015 and **a moderate decrease (-5.0% to -9.9%)** in comparison with the fill rate in 2013-2014.

The FTEF/30 ratio in Physics courses in 2015-2016 showed **a substantial increase (>= 10.0%)** from 2014-2015 and **a substantial increase (>= 10.0%)** in comparison with the FTEF/30 ratio in 2013-2014.

The WSCH/FTEF ratio in Physics courses in 2015-2016 showed **a slight decrease (-1.0% to -4.9%)** from 2014-2015 and **a substantial decrease (>= -10.0%)** in comparison with the WSCH/FTEF ratio in 2013-2014.

COURSE SUCCESS RATE:

The course success rate in Physics courses in 2015-2016 showed **a moderate increase (5.0% to 9.9%)** from 2014-2015 and **a moderate increase (5.0% to 9.9%)** in comparison with the course success rate in 2013-2014. The course success rate from 2015-2016 showed **a substantially higher rate (>= 10.0%)** than the college success average* (*66.6%*) and showed **a substantially higher rate (>= 10.0%)** than the institutional-set standard* (*56.6%*) for credit course success.

TERM RETENTION RATE:

The term retention rate in Physics courses in 2015-2016 showed **a slight increase (1.0% to 4.9%)** from 2014-2015 and **a moderate increase (5.0% to 9.9%)** in comparison with the term retention rate in 2013-2014. The term retention rate from 2015-2016 showed **a moderately higher rate (5.0% to 9.9%)** than the college retention average* (*83.3%*) and showed **a substantially higher rate (>= 10.0%)** than the institutional-set standard* term retention (*70.8%*) for credit courses.

AWARDS (DEGREES AND CERTIFICATES):

The number of degrees in Physics in 2015-2016 showed **no previous data** from 2014-2015 and showed **no previous data** in comparison with the number of degrees awarded in 2013-2014.

The number of certificates in Physics in 2015-2016 showed **no previous data** from 2014-2015 and showed **no previous data** in comparison with the number of certificates awarded in 2013-2014.

MODALITY:

In 2015-2016 **none (0%)** of the **Physics** courses were offered as **cable** courses, while **none (0%)** of the courses were offered in **correspondence**, **close to half (25% to 50%)** of the courses offered were **hybrid**, **more than half (50% to 74%)** of the courses offered were **online**, **none (0%)** of the courses offered were **self-paced**, **none (0%)** of the courses offered were **telecourse**, and **less than a quarter (1% to 24%)** of the courses were offered in **traditional in-person** setting.

GENDER

In 2015-16 there **was NOT a disproportional impact** in **Physics** course success rates for *female students*; and there **was NOT a disproportional impact** in **Physics** course success rates for *male students*.

AGE GROUPS

In 2015-2016 there **was NOT a disproportional impact** in **Physics** course success rates for students *less than 20 years old*; there **was NOT a disproportional impact** in **Physics** course success rates for students *20 to 24 years old*; there **was NOT a disproportional impact** in **Physics** course success rates for students *25 to 29 years old*; there **was NOT a disproportional impact** in **Physics** course success rates for students *30 to 34 years old*; there **was NOT a disproportional impact** in **Physics** course success rates for students *35 to 39 years old*; there **was a disproportional impact** in **Physics** course success rates for students *40 to 49 years old*; there **was NOT a disproportional impact** in **Physics** course success rates for students *50+ years old*.

RACE/ETHNICITY

In 2015-2016 there **was a disproportional impact** in **Physics** course success rates for *African American* students; there **was NOT a disproportional impact** in **Physics** course success rates for *American Indian* students; there **was NOT a disproportional impact** in **Physics** course success rates for *Asian/Pacific Islander* students; there **was NOT a disproportional impact** in **Physics** course success rates for *Hispanic/Latino* students; there **was NOT a disproportional impact** in **Physics** course success rates for *White/Non-Hispanic* students; there **was a disproportional impact** in **Physics** course success rates for *Multi-race* students; there **was NOT a disproportional impact** in **Physics** course success rates for students who have *declined to state their race/ethnic identity*.

Note: Disproportional Impact is calculated via the Proportionality Index Method with an 80% threshold for negative impact. This method is a measure of representational equity of each subgroup to its initial proportionality at the beginning of the term. Proportionality Index Method compares the demographic characteristics of those who successfully completed the course to the demographics characteristics of the same group that enrolled in the course at the beginning of the term. Proportions of less than 80% are flagged as experiencing disproportional impact.

Implications of Change: Physics

As highlighted in the *Executive Summary*, enrollment and FTEs in Physics have been relatively flat over the last 5 years. This is primarily due to only having one FT faculty for Astronomy and Physics (David Devine). In additional, due to a lack of sufficient Instructional Lab Associates during most of this period, Devine has also served as the "Lab Technician" for Physics and Astronomy, where his duties included identifying, ordering, and maintaining suitable lab equipment for Physics and Astronomy. Although Astronomy was able to grow significantly during this time, nearly tripling the number of FTEs, this splitting of duties has resulted in a relative lack of growth in Physics.

The addition of Calculus-Based Physics (PHYS 185/280/285), the expected increase in numbers of STEM majors taking onsite classes at NBC, and the creation of an ADT in Physics are all expected to result in an increase in the enrollment and FTEs in Physics over the next 5 years.

- It is no longer feasible for Devine to build and grow Astronomy and Physics, and he would prefer to focus his energies on Astronomy, which is his field of expertise.

- We will need to hire a FT Physics faculty within 1-2 years in order to continue to build and grow Physics and to serve the expected increase in STEM majors at Coastline.

- Room 117 at NBC is the current Physics lab, although it was designed to be a dance studio. In order to facilitate the continued growth of Chemistry and Physics at NBC, the computer rooms (315 and 316) will need to be converted into labs suitable for Chemistry and Physics within the next 3-5 years.

Academic Year	2013-14	2014-15	2015-16
CENSUS Enrollment	370	336	375
FTES	36.0	34.0	38.8
FTEF30	1.2	1.2	1.4
WSCH/FTEF	505	466	452
Sections	7.0	7.0	8.0
Fill Rate	83.7%	77.4%	76.4%
DEGREES AND CERTIFICATES			
Associate Degrees	0	0	0
Certificates	0	0	0
STUDENT DEMOGRAPHICS			
GRADED Enrollment*	354	338	376
GENDER			
Female	58.5%	54.1%	55.6%
Male	39.8%	43.5%	42.3%
Unknown	1.7%	2.4%	2.1%
AGE at TERM			
Less than 19	11.0%	10.7%	8.2%
20 to 24	37.9%	45.6%	46.5%
25 to 29	22.9%	19.5%	22.1%
30 to 34	13.0%	10.7%	9.3%
35 to 39	3.4%	5.3%	5.9%
40 to 49	7.6%	4.4%	4.5%
50 and Older	4.2%	3.8%	3.5%
RACE/ETHNICITY			
African American	4.2%	1.8%	2.7%
American Indian	0.3%	0.3%	0.3%
Asian/Pacific Islander	38.4%	37.6%	38.8%
Hispanic/Latino	16.7%	21.0%	19.4%
2 or More Race	5.9%	4.4%	4.3%
White	30.5%	33.7%	32.4%
Unknown	4.0%	1.2%	2.4%
INSTRUCTIONAL MODALITY			
Cable			
Correspondence			
Hybrid	23.2%	27.5%	26.9%
Online	76.8%	72.5%	70.5%
Self-Paced			
Telecourse			
Traditional			2.7%
SUCCESS & RETENTION			
Course Success (A, B, C, P)	76.6%	75.8%	81.1%
Course Retention (A-F, P, NP)	83.9%	88.5%	89.6%

** Note: **GRADED ENROLLMENTS** excludes Zero Unit Lab enrollments since there is only 1 Grade issued across 2 or more CRNs.*

Academic Year	2012-13	2013-14	2014-15
GRADED ENROLLMENT	354	338	376
-Overall Success Rate	76.8%	76.0%	81.1%
-Overall Retention Rate	83.9%	88.5%	89.6%

STUDENT DEMOGRAPHICS			
GENDER			
Female	207	183	209
Male	141	147	159
Unknown	6	8	8
Success Rate			
- Female	78.3%	79.8%	80.9%
- Male	74.5%	70.7%	81.1%
- Unknown	83.3%	87.5%	87.5%
Retention Rate			
- Female	83.6%	91.3%	88.0%
- Male	84.4%	85.0%	91.8%
- Unknown	83.3%	87.5%	87.5%

Academic Year	2012-13	2013-14	2014-15
GRADED ENROLLMENT	354	338	376
-Overall Success Rate	76.8%	76.0%	81.1%
-Overall Retention Rate	83.9%	88.5%	89.6%

AGE at TERM			
Less than 19	39	36	31
20 to 24	134	154	175
25 to 29	81	66	83
30 to 34	46	36	35
35 to 39	12	18	22
40 to 49	27	15	17
50 and Older	15	13	13

Success Rate			
Less than 19	74.4%	72.2%	83.9%
20 to 24	79.1%	71.4%	83.4%
25 to 29	80.2%	81.8%	80.7%
30 to 34	78.3%	91.7%	77.1%
35 to 39	75.0%	83.3%	81.8%
40 to 49	55.6%	66.7%	64.7%
50 and Older	80.0%	69.2%	76.9%

Retention Rate			
Less than 19	82.1%	83.3%	90.3%
20 to 24	86.6%	86.4%	90.3%
25 to 29	88.9%	92.4%	91.6%
30 to 34	82.6%	97.2%	82.9%
35 to 39	75.0%	94.4%	90.9%
40 to 49	66.7%	80.0%	82.4%
50 and Older	80.0%	84.6%	92.3%

Academic Year	2012-13	2013-14	2014-15
GRADED ENROLLMENT	354	338	376
-Overall Success Rate	76.8%	76.0%	81.1%
-Overall Retention Rate	83.9%	88.5%	89.6%

RACE/ETHNICITY			
African American	59	71	73
American Indian	136	127	145
Asian	15	6	10
Hispanic/Latino	21	15	17
Pacific Islander	14	4	8
White	108	114	122
Unknown	1	1	1

Success Rate			
African American	76.3%	70.4%	76.7%
American Indian	76.5%	77.2%	84.8%
Asian	66.7%	83.3%	50.0%
Hispanic/Latino	85.7%	80.0%	64.7%
Pacific Islander	92.9%	75.0%	100.0%
White	75.9%	78.1%	82.8%
Unknown	0.0%	0.0%	100.0%

Retention Rate			
African American	84.7%	88.7%	86.3%
American Indian	84.6%	87.4%	90.3%
Asian	66.7%	100.0%	80.0%
Hispanic/Latino	95.2%	86.7%	94.1%
Pacific Islander	92.9%	100.0%	100.0%
White	82.4%	89.5%	90.2%
Unknown	0.0%	0.0%	100.0%

Academic Year	2012-13	2013-14	2014-15
GRADED ENROLLMENT	354	338	376
-Overall Success Rate	76.8%	76.0%	81.1%
-Overall Retention Rate	83.9%	88.5%	89.6%

INSTRUCTIONAL MODALITY			
Cable			
Correspondence			
Hybrid	82	93	101
Online	272	245	265
Self-Paced			
Telecourse			
Traditional			10

Success Rate

Cable			
Correspondence			
Hybrid	75.6%	79.6%	83.2%
Online	77.2%	74.7%	80.8%
Self-Paced			
Telecourse			
Traditional			70.0%

Retention Rate

Cable			
Correspondence			
Hybrid	85.4%	83.9%	88.1%
Online	83.5%	90.2%	90.9%
Self-Paced			
Telecourse			
Traditional			70.0%

Student (SLOs) and Program Student Learning Outcome (PSLOs)

SLOs for all Astronomy, Chemistry, Geology and Physics courses were updated during our curriculum review in Fall 2016 - Fall 2017. We plan to integrate SLOs into CANVAS before the start of Fall 2019.

Curriculum Review

Table Curriculum Review

Course	Date Reviewed	Status
ASTR100, 100L, 102, 103	Spring/Fall 2017	Approved
CHEM 140	Fall 2016	Approved
CHEM110,110L,130,180,180L,185,185L,225,225L	Spring/Fall 2017	Pending
GEOL 105,105L,106,115,121,185,185L	Fall 2014/Fall 2016	Approved
PHYS 110,110L	Spring /Fall 2017	Pending
PHYS 120,125,185,280,285	Spring /Fall 2017	Approved

External Compliance

External Compliance depends on the District, our single Instructional Lab Associate, and participation of the science faculty. The information below was prepared by Kevin Pegg, our district representative. Our single instructional lab associate, Angelique Hill, is responsible for compliance over our three campus, and all Science labs. We have recently hired an additional FT instructional lab associated, Crystin Eggers, who will be helping with the science labs.

Applicable Regulations to the Laboratories

California Code of Regulations, Title 8, Section 3203 (Injury and Illness Prevention Program)
California Code of Regulations, Title 8, Section 5191 (Occupational Exposures to Hazardous Chemicals in Laboratories)
California Code of Regulations, Title 8, Section 5139 (Dusts, Fumes, Mists, Vapors, and Gases)
California Code of Regulations, Title 8, Section 5154.1 (Ventilation Requirements for Laboratory-Type Hood Operations)
California Code of Regulations, Title 8, Section 5155 (Airborne Contaminants)
California Code of Regulations, Title 8, Section 5194 (Hazard Communication)
California Code of Regulations, Title 8, Section 5164 (Storage of Hazardous Materials)
California Code of Regulations, Title 8, Section 3380 (Personal Protective Equipment)
California Code of Regulations, Title 8, Section 5193 (Bloodborne Pathogens)
California Code of Regulations, Title 8, Section 5144 (Respiratory Protection)
California Code of Regulations, Title 24, Division 4.5 (Hazardous Waste Management)
Cal. Health and Safety Code, Division 104, Part 14, Sections 117600-118360 (Medical Waste Management)

Actions Taken

- Tri-annual pick-ups for hazardous waste
- Annual formaldehyde sampling of storage areas
- Annual fume hood/ventilation certifications
- Annual inventory checks and Safety Data Sheet updates
- Annual laboratory inspections covering the following items
    - General Safety/Housekeeping
    - Emergency Equipment and Planning
    - Personal Protective equipment
    - Signs, Labels, Plans, and Postings
    - Chemical and Microbial Safety
    - Electrical Hazards
    - Compressed Gases
    - Engineering Controls
    - Training and Documentation

Gaps

- Engineering controls such as exhaust ventilation in the anatomy and physiology laboratories at Le-Jao Center and Newport Beach Center
    - Testing with portable air scrubbers w/activated charcoal filters
- Dedicated hazardous waste storage site (outside of the laboratory) at Le-Jao Center, Garden Grove Center, and Newport Beach Center
- Exposure monitoring for dissection specimen off-gassing solvents and preservative chemicals
- Chemical Hygiene Plan/Lab Safety training for staff and faculty
- Spill Prevention, Control, and Countermeasures training for staff and faculty

Progress on Initiative(s)

Initiative(s)	Status	Progress Status Description	Outcome(s)
Astronomy: Develop Labs and Lab Manuals for ASTR100 Lab (2013-2017)	In Progress	Equipment purchased Spring 2015, Labs being revised.	ASTR100 Lab offered for the first time in Spring 2016, modifications continue in Fall 2017.
Astronomy: Acquire a minimum of five 8-inch telescopes for hands-on labs and field trips. (2013-2017)	Completed	Equipment purchased, labs being designed.	Telescopes and associated accessories purchased in Spring 2015 (THANKS!!).
Astronomy: Work with OCC to teach advanced ASTR courses. (2013-2018)	Not Started	On hold until CCC ASTR and PHYS curricula are stable.	n/a
Chemistry: Implement Organic Chemistry sequence for CHEM and BIO majors.	In Progress	Although courses are currently offered, articulation agreements have not been finalized. Additional load to Instructional Associate.	Organic Chemistry started in 2014. Organic Chemistry full time faculty hired (Jean Dupon).
Chemistry: Establish AS-T Degree	In Progress	Chemistry AS-T has been established, but has not been published yet. Preparatory steps: 1) align current CHEM 180 and 185	

		syllabi with C-ID course descriptors; 2) submit for C-ID approval	
Chemistry: Offer CHEM130 in hybrid format.	In Progress		
Geology: Continue to update and review modalities for course offering. Add GEOL 105 and 105L for summer.	Complete		Hired two new adjunct instructors and are offering two additional sections of online GEOL C105L Lab
Geology: Develop site-based lab for major.	Not Started	Retirement of Debbie Secord in Spring 2017 will delay this project.	
Physics: Purchase lab and computer equipment for full set of Phys120/125 labs. (2013-2015)	Complete	Equipment purchased in Spring 2013.	Equipment for 20 new labs has been implemented at NBC beginning Fall 2013.
Physics: Design a full suite of labs and associated lab manuals for Phys120/125. (2013-2015)	Complete	New revisions related to CANVAS migration for 2016-2017.	Instructor Version for PT due for completion by Fall 2018
Physics: Establish AS-T Degree in Physics (2013-2016)	Completed	Physics curricula needs to be revised to match Carnegie units. Will take place in 2016-2017.	State approval for AS-T and associated C-ID designations granted in 2014-2015.

Program Planning and Communication Strategies

In addition to periodic email exchanges, the FT faculty meet 2-3 times per semester to discuss department needs, future plans, and scheduling needs. We plan on implementing CANVAS based SLOs for analysis by Fall 2019.

Forward Strategy

College goals the Above Initiatives and Program Planning and Communication Strategies support:

- Instructional and Programmatic Excellence
- Access and Student Support

Initiative(s)
Astronomy: Improve onsite numbers for ASTR100 and ASTR100L by increased marketing efforts by Fall 2019. Offer more advanced courses (ASTR 102, 103) in coordination with sister colleges.
Chemistry: Complete all required C-ID approvals and obtain Chemistry ADT approval by Fall 2018. Continue to grow onsite and online Chemistry offerings.
Geology: (Contingent upon hiring FT replacement for Debbie Secord) Increase onsite offerings at NBC
Physics: (Contingent upon hiring FT Physics faculty) Double the number of students taking onsite Physics at NBC, create courses for Engineering majors.
Physical Sciences: Faculty Web Pages: to be completed Fall 2019

Educational Master Plan objective the above Initiatives and Program Planning and Communication Strategies support:

- Increase student success, retention, and persistence across all instructional delivery modalities with emphasis in distance education.
  Provide universal access to student service and support programs.
- Strengthen post-Coastline outcomes (e.g., transfer, job placement).
- Explore and enter new fields of study (e.g., new programs, bachelor's degrees).
- Foster and sustain industry connections and expand external funding sources (e.g., grants, contracts, and business development opportunities) to facilitate programmatic advancement.
- Strengthen community engagement (Hoag Scholars Program)

What evidence supports these initiatives?

- Learning Outcome (SLO/PSLO) assessment
- Internal Research (Student achievement, program performance)
- External Research (Academic literature, market assessment, audit findings, compliance mandates)

Section 2: Human Capital Planning

Staffing

Table 2.1 Staffing Plan

Year	Administrator	Management	F/T Faculty	Adjunct	Classified*	Hourly*
Previous year 2016-17	Dean 1	0	2 Chem 1 Astr/Phys 1 Geol	1 Astr, 8 Chem, 5 Geol, 2 Phys	0 FT Instructional Associate (Lab)	1 Instructional Associates (Lab)
Current year 2017-18	Dean 1	0	2 Chem 1 Astr/Phys	1 Astr, 8 Chem, 5 Geol, 2 Phys	1 FT Instructional Associate (Lab)	1 Instructional Associates (Lab)
1 year 2018-19	Dean 1	0	2 Chem 1 Astr/Phys 1 Geol	1 Astr, 9 Chem, 2 Geol, 2 Phys	1FT Instructional Associate (Lab)	1 Instructional Associates (Lab
2 years 2019-2020	Dean 1	0	2 Chem 2 Astr/Phys 1 Geol	1 Astr, 10 Chem, 2 Geol, 1 Phys	1 FT Instructional Associate (Lab)	1 Instructional Associates (Lab
3 years 2020-2021	Dean 1	0	2 Chem 2 Astr/Phys 1 Geol	1 Astr, 10 Chem, 2 Geol, 1 Phys)	1 FT Instructional Associate (Lab)	1 Instructional Associates (Lab

* A strict division between the Life Sciences and the Physical Sciences did not exist in 2016-2017. As a result, Instructional Lab Associates were expected to serve Biology and Chemistry, and there was no lab support for Astronomy, Geology or Physics. In the interest of efficiency, an overlap between the Life Sciences and the Physical Sciences is expected to remain for future Instructional Lab Associates. In spite of this blurring, the Classified and Hourly columns in this table only refer to the Physical Sciences (Astronomy, Chemistry, Geology and Physics)

Instructional Lab Associate for Physical Science:

Definition:

Under general supervision, provides instructional assistance and support tasks to students in the Physical Sciences (Astronomy, Chemistry, Geology and Physics) in accordance with assignments and directions from a course instructor or other academic personnel; provides technical assistance to students, faculty, and staff in the use of technology in instructional programs; monitors and reports student progress; maintains Physical Science lab operations; provides instructional support for the students enrolled in Physical Science classes/labs requiring technical competence in basic math, general physics, chemistry, use of instructional equipment and software, and basic academic skills.

We require one FT and 1 PT Instructional Lab Associate based primarily at NBC to cover Chemistry and Physics.

Professional Development

Chemistry:

Jean Dupon acts as the Chemical Safety officer for Coastline Community College and is a member of the Educational Committee for the Orange County section of the American Chemical Society. She recently updated and extended the course outlines for the Chemistry curriculum at Coastline, including comprehensive course descriptions and outlining the combination of the separate Lecture and Laboratory components of the General Chemistry and Organic Chemistry sequences into combined courses with single grading. She attended the NSF-sponsored Chemistry Collaborations, Workshops and Community of Scholars (CCWCS) workshop entitled " Active Learning in Organic Chemistry" in 2015. She has participated in courses in the Chemistry of Biomolecules offered by MIT open courseware (ocw.mit.edu) and an Adobe Digital Creativity course. She is presently writing a new laboratory manual for use in Chem 130 for introduction in Spring 2017 as well as a laboratory manual for the Organic Chemistry series: Chem 220/225.

Physics and Astronomy:

David Devine attended the American Astronomical Society meeting in San Diego June 2016. He continues to design and build laboratory exercises for ASTR100L, PHYS120, PHYS125, and PHYS18

Table 2.2 Professional Development

Forward Strategy

The following strategies are based primarily on the rapid growth that has taken place in the Physical Sciences over the past four years. This information was presented in the Executive Summary, and is repeated here for emphasis.

Physical Sciences Growth: 2012 - 2016

Subject	Census 2012-2013	Census 2015-2016	Census Increase	FTEs 2012-2013	FTEs 2015-2016	FTEs Increase
ASTR	659	1258	91%	26	82	315%
CHEM	1275	1551	22%	137	249	82%
GEOL	1425	1701	19%	91	138	50%
PHYS	425	460	8%	32	39	12%
Total	3784	4970	**31%**	286	510	**78%**

This is a great beginning, but more growth is required in order to realize the goal of having NBC serve as a STEAM center (**S**cience, **T**echnology, **E**ngineering, **A**rts and **M**athematics). Here are some of the major strategies for the next 5 years:

1. Year 1: Hire a FT Geology faculty as a replacement for Debbie Secord. Debbie has played an essential role in establishing Geology at Coastline. She developed the online courses, worked closely with the PT faculty to improve course content, and was working towards increasing the online and onsite Geology courses at the time of her retirement. This work requires the presence of a FT faculty member for reasons of continuity and consistency.

2. Years 1-2: Hire a FT Physics faculty. David Devine is the current FT faculty for Astronomy and Physics. During the past 5 years Devine has built up both programs essentially from scratch and established an ADT in Physics. In addition to creating the online content for the lecture portions of ASTR100, PHYS120 and PHYS125, he has also been responsible for creating the labs for ASTR100L, PHYS120, PHYS125, and PHYS180. He has also been responsible for ordering and maintaining the lab equipment associated with Astronomy and Physics. As can be seen from the table shown above, the increase in enrollment and FTEs during this period has been substantial in Astronomy, but not in Physics. A FT faculty in Physics is required to grow Physics, especially given the expected increases in STEM majors at NBC.

3. Years 1-5: Maintain 1 FT Instructional Lab Associate for the Physical Sciences. The recent hire of Crystal Eggers has provided some long-needed help in lab support for the Life Sciences and the Physical Sciences. At present, we offer a total of 6 Chemistry labs at GGC, 6 Chemistry labs at NBC, 1 Astronomy lab at NBC, and 3 Physics labs at NBC, all on a weekly basis.

Section 3: Facilities Planning

Facility Assessment

Astronomy: Lecture and Lab are taught in Room 117 at NBC. This room was designed to be a dance studio, and is not ideal for teaching. Dr. Devine decided against using carpet when NBC was still in the planning stages in order save money by avoiding costs associated with carpet upkeep and eventual replacement. This may have been a bad decision, as the acoustics in this room are very poor. A storage room for Astronomy is connected to Room 317.

Chemistry: Lecture and Lab classes are divided between Garden Grove and Newport Beach.

- GGC Room 307 is used to teach CHEM 110, 130, 180L and 185L.
- GGC Room 307 is not suitable for teaching Organic Chemistry (CHEM220/225)
- GGC Room 307 is poorly designed, and does not allow for student-student or student-instructor interactions due to the presence of equipment that is stored on the upper shelf of the lab tables.
- GGC Room 307 is designed to serve 24 students.
- NBC Room 219 is used to teach CHEM 110, 130, 180L, 185L, 220L and 225L.
- NBC Room 219 is designed to serve 24 students.

Geology: Most of the courses are taught online. There are onsite labs taught at NBC, but there is no need for a specialized labroom as required for Chemistry and Physics.

Physics: Lecture and Lab are taught in Rm 117 at NBC. This room was designed to be a dance studio, and is not ideal for teaching. Devine decided against using carpet when NBC was still in the planning stages in order save money by avoiding the necessity for carpet upkeep and eventual replacement. This may have been a bad decision, as the acoustics in this room are very poor. A storage room for Physics is connected to Room 317.

Forward Strategy

Based on the expected growth rates, we anticipate that most of the CHEM lab space at GGC and NBC will filled within the next 2-3 years, which will stunt future STEM growth at both centers. In order to alleviate this, we propose to convert some of the rarely used computer labs at GGC and at NBC into lab space for CHEM and PHYS. For example, rooms 306 at GGC and rooms 315 and 316 at NBC could be well suited for conversion into combined CHEM and PHYS lab space.

What college goals do the addition of CHEM and PHYS lab space at GGC and NBC support?

- Instructional and Programmatic Excellence- Create two centers for the Health Sciences and Science majors
- Access and Student Support
- Student Retention and Persistence
- Culture of Evidence, Planning, Innovation, and Change
- Fiscal Stewardship, Scalability, and Sustainability-much easier to manage two centers than three

What Educational Master Plan objective do the addition of CHEM and PHYS lab space at GGC and NBC support?

- Increase student success, retention, and persistence across all instructional delivery modalities with emphasis in distance education.
- Provide universal access to student service and support programs.
- Strengthen post-Coastline outcomes (e.g., Nursing Programs, transfer to Universities).
- Explore and enter new fields of study (e.g. ADTs in the Sciences).
- Foster and sustain industry connections and expand external funding sources (e.g., STEM grants, Hoag Scholars Program) to facilitate programmatic advancement.
- Strengthen community engagement (e.g., student life, alumni relations, and academic alliances).
- Maintain the College's Asian American and Native American Pacific Islander Serving Institution (AANAPISI) designation and pursue becoming a designated Hispanic Serving Institution (HSI).

What evidence supports the addition of CHEM and PHYS lab space at GGC and NBC support?

- Internal Research (Student achievement, program performance)

TIMELINE: 3-5 years

Section 4: Technology Planning

Technology Assessment

Technology is utilized in all Physical Science courses, ranging from software used for data analysis to laboratory equipment. There are no major technology needs for the Physical Sciences at this time.

Equipment Assessment: Current Needs

Astronomy: A start-up cost of roughly $30K was spent on Astronomy equipment during the last 5 years. There is no current need for additional equipment. There is an annual need associated with maintenance of roughly $1K per year.

Chemistry: There is an immediate need for 3 spectrophotometers (roughly $2000 each).

Geology: Most of the Geology courses are online, and there is no current onsite Geology equipment associated with labs.

Physics: A start-up cost of roughly $30K was spent on Physics equipment during the last 5 years. There is no current need for additional equipment.

Forward Strategy

Computers for Proposed New Lab Space at GGC and NBC:

The addition of new lab space at GGC and NBC should include the presence of sufficient computers so that students may utilize existing simulations as part of their laboratory exercises. The expected format would be similar to what is currently utilized for Astronomy and Physics in Room 117 at NBC.

What college goal does this support?

- Student Success, Completion, and Achievement
- Instructional and Programmatic Excellence
- Access and Student Support
- Student Retention and Persistence
- Fiscal Stewardship, Scalability, and Sustainability

What Educational Master Plan objective does this support?

- Increase student success, retention, and persistence across all instructional delivery modalities with emphasis in distance education.
- Provide universal access to student service and support programs.
- Strengthen post-Coastline outcomes (e.g., transfer, job placement).

Section 5: New Initiatives

Initiative I: STEAM Academy

Describe how the initiative supports the college mission:
Supports an innovative and student-centered mindset and courses and services that cultivate and guide a diverse student population to complete pathways leading to the attainment of associate degrees, certificates, and career-readiness.

What college goal does the initiative support? Select one
☐ Student Success, Completion, and Achievement
☐ Instructional and Programmatic Excellence
☐ Access and Student Support
☐ Student Retention and Persistence
☐ Culture of Evidence, Planning, Innovation, and Change
X Partnerships and Community Engagement
☐ Fiscal Stewardship, Scalability, and Sustainability

What Educational Master Plan objective does the initiative support? Select all that apply
☐ Increase student success, retention, and persistence across all instructional delivery modalities with emphasis in distance education.
☐ Provide universal access to student service and support programs.
X Strengthen post-Coastline outcomes (e.g., transfer, job placement).
☐ Explore and enter new fields of study (e.g., new programs, bachelor's degrees).
X Foster and sustain industry connections and expand external funding sources (e.g., grants, contracts, and business development opportunities) to facilitate programmatic advancement.
X Strengthen community engagement (e.g., student life, alumni relations, industry and academic alliances).
X Maintain the College's Asian American and Native American Pacific Islander Serving Institution (AANAPISI) designation and pursue becoming a designated Hispanic Serving Institution (HSI).

What evidence supports this initiative? Select all that apply
☐ Learning Outcome (SLO/PSLO) assessment
X Internal Research (Student achievement, program performance)
X External Research (Academic literature, market assessment, audit findings, compliance mandates)

Describe how the evidence supports this initiative.
AISL program investments should be of interest and utility to public audiences, informal STEM practitioners, and decision-makers. All proposals must articulate clear rationales describing why a project is primarily informal and how it adds value to the informal STEM learning community. The products of AISL investments may include, but are not limited to, exhibitions and programs in museums, zoos, aquaria, botanic gardens/arboreta, planetariums, nature centers, parks, libraries, and other environments; science communication; after-school and out-of-school time (OST) programs; radio, television, film, or media programs or series; Do-It-Yourself (DIY)/maker initiatives; opportunities for the public to engage in research including crowd-sourcing and citizen science; on-line and other digital experiences (e.g., games, simulations, social media, mobile computing, distributed networks, and massive online open courses); and research findings that articulate what works, for whom, why, and in what contexts. Given that almost any environment can support informal science learning, there is an opportunity to understand how learners can be supported to make bridges between what they learn in one setting and what they learn in another setting.

Thus, projects may choose to include how informal learning practices connect with STEM-related frameworks and curricula, college and career readiness standards, or other educational settings (Activities that support STEM pathways from Elementary, Middle School, and High School to CC).

Audiences for AISL Projects: AISL projects engage participants drawn from both public and professional audiences. Public audiences may include learners of any age, educational level, geographic, or cultural background, including those from groups underrepresented in STEM or underserved in STEM, including geographic regions and economically challenged communities. The AISL program is keenly interested in projects that support understanding issues of access to informal STEM learning opportunities for individuals/groups from populations typically underrepresented in STEM, people in rural as well as urban communities, adults across the lifespan, early childhood, and intergenerational and family groups.

Area of Interest

(3) Innovations in Development Projects can be funded for $500,000 to $3 million and from two to five years in duration. The AISL program anticipates funding 10-15 per year. The Innovations in Development project type is expected to result in deliverables such as exhibits, media products, after school programs, etc., and in innovative models, programs, technologies, assessments, resources, or systems for an area of STEM learning in informal environments. As R&D projects, proposals should describe activities for the design and development of new or improved innovations or approaches to achieve specific goals related to STEM learning, engagement, and capacity building. These proposals build on evidence from the team's or the field's prior research, design, practice, and development work. It is understood that innovations take many forms and occur at different scales. While the range for funding is quite broad, applicants should consider small and medium scale innovations depending on the nature of what is being innovated. An explicit theoretical framework as well as either a logic model or theory of action should guide projects.

Idea 1: Marine Science field trips and teacher training - the field of Marine Science is of interest to the local public and offers learning opportunities that can combine geology, engineering, technology, physics and mathematics, and life sciences across age groups in Elementary, MS, and HS. From the call, "Innovations in Development projects focus on and leverage the development of a product, model, tool, or resource to better understand and inform practice. These deliverables are expected to have a service life beyond NSF funding." Products and programs can complement and serve CCC Marine Science students as well and include summer internships, like our current BIOL292 did this past summer, which included local students at the High School and CC level. Summer internships and day camps could also be a component, or culmination of a succession of workshops held throughout the year. We also currently partner with Marine Science Citizen Science Programs through the Amigos de Bolsa Chica in Huntington Beach. Current partnerships with Girls Inc of Costa Mesa can also provide opportunities. Could be extended to Santa Ana, where Magnolia Science Academy's Charter School is located, serving grades K-12.

Idea 2: Art and Science - combine art and science through drawing and 3D printing workshops. This is technically STEAM, but with the 3D printing component we can include engineering, technology, physics and mathematics, and life sciences across age groups in Elementary, MS, and HS, and meet current CCC student interest. Summer internships could also be a component, or culmination of a succession of workshops.

Idea 3: Learning Gardens - developing native gardens in current planters and spaces around NBC to support local restoration efforts, engage the gardening community, and teach students across multiple learning levels about botany and native habitats. Sustainable design can also be a part of these projects.

Idea 4: Offer all 3 areas under a STEAM umbrella that provides overlap - ie/ drawing, 3D and sustainability design can be incorporated and woven through each area above. We could offer a different focus each semester, or allow participants to choose one or two area to focus on. All three areas could culminate in a Gallery Exhibition. We need a catchy name that could attract students as an extracurricular opportunity, "STEAM Academy" -type thing that we could run throughout the year...

Recommended resource(s) needed for initiative achievement:
STEAM Grant funding-Applied for in Spring 2017.

What is the anticipated outcome of completing the initiative?
Increasing student success in the sciences; increase transfer rate in the sciences

Provide a timeline and timeframe from initiative inception to completion.
Five years

Initiative II: Human Cadaver Lab

Describe how the initiative supports the college mission:
Supports an innovative and student-centered mindset and courses and services that cultivate and guide a diverse student population to complete pathways leading to the attainment of associate degrees, certificates, and career-readiness.

What college goal does the initiative support? Select one
☐ Student Success, Completion, and Achievement
x Instructional and Programmatic Excellence
☐ Access and Student Support
☐ Student Retention and Persistence
☐ Culture of Evidence, Planning, Innovation, and Change
☐ Partnerships and Community Engagement
☐ Fiscal Stewardship, Scalability, and Sustainability

What Educational Master Plan objective does the initiative support? Select all that apply
Increase student success, retention, and persistence across all instructional delivery modalities with emphasis in distance education.
Provide universal access to student service and support programs.
x Strengthen post-Coastline outcomes (e.g., transfer, job placement).
x Explore and enter new fields of study (e.g., new programs, bachelor's degrees).
☐ Foster and sustain industry connections and expand external funding sources (e.g Hoag Scholars Program) to facilitate programmatic advancement.
☐ Strengthen community engagement (e.g., student life, alumni relations, industry and academic alliances).
☐ Maintain the College's Asian American and Native American Pacific Islander Serving Institution (AANAPISI) designation and pursue becoming a designated Hispanic Serving Institution (HSI).

What evidence supports this initiative? Select all that apply
x Learning Outcome (SLO/PSLO) assessment
x Internal Research (Student achievement, program performance)
External Research (Academic literature, market assessment, audit findings, compliance mandates)

Describe how the evidence supports this initiative.
Please see complete justification under Facilities Planning. Some students, as part of their application process for transfer to degree programs, require access to a human cadaver. Having a human cadaver program would enhance the Health Science students experience, meet the needs of the transfer student requirements, and may eliminate the need for the dissection of cats (which has become increasingly difficult as there is a shortage). Also, as one student put it, this is a Human Anatomy class, not a Cat Anatomy class. Below are the current numbers of students served in the Health Sciences:

Recommended resource(s) needed for initiative achievement:
Please see complete description under Facilities Planning.
Room modifications
Equipment-see attachment
Ventilation

What is the anticipated outcome of completing the initiative?
Please see complete justification under Facilities Planning. Coastline served almost 8000 students in the Health Science Certificate Class over the past four years, 1867 of them took Human Anatomy. Our science classes increase the on ite enrollments of our college

Provide a timeline and timeframe from initiative inception to completion.
1-3 years, depending on funding

Initiative III: Health Science Academic Triathlon

Describe how the initiative supports the college mission:
Supports an innovative and student-centered mindset and courses and services that cultivate and guide a diverse student population to complete pathways leading to the attainment of associate degrees, certificates, and career-readiness.

What college goal does the initiative support? Select one
☐ Student Success, Completion, and Achievement
☐ Instructional and Programmatic Excellence
☐ Access and Student Support
☐ Student Retention and Persistence
x Culture of Evidence, Planning, Innovation, and Change
☐ Partnerships and Community Engagement
☐ Fiscal Stewardship, Scalability, and Sustainability

What Educational Master Plan objective does the initiative support? Select all that apply
☐ Increase student success, retention, and persistence across all instructional delivery modalities with emphasis in distance education.
☐ Provide universal access to student service and support programs.
☐ Strengthen post-Coastline outcomes (e.g., transfer, job placement).
☐ Explore and enter new fields of study (e.g., new programs, bachelor's degrees).
☐ Foster and sustain industry connections and expand external funding sources (e.g., grants, contracts, and business development opportunities) to facilitate programmatic advancement.
x Strengthen community engagement (e.g., student life, alumni relations, industry and academic alliances).
☐ Maintain the College's Asian American and Native American Pacific Islander Serving Institution (AANAPISI) designation and pursue becoming a designated Hispanic Serving Institution (HSI).

What evidence supports this initiative? Select all that apply
☐ Learning Outcome (SLO/PSLO) assessment
x Internal Research (Student achievement, program performance)
☐ External Research (Academic literature, market assessment, audit findings, compliance mandates)

Describe how the evidence supports this initiative.
The Health Science Triathlon supports and engages our students, recognizes the importance of the Health Care Certificate and enhances student involvement.

Recommended resource(s) needed for initiative achievement:
Marketing support; Coastline T shirts, cups or other to each competitor; Faculty stipends for work on questions and at the event. Estimated cost: $1200 per event (every two years).

What is the anticipated outcome of completing the initiative?
Increased awareness of the Health Science Certificate; Student involvement and collegiality. Student support.

Provide a timeline and timeframe from initiative inception to completion.
The Academic Health Science Triathlon occurred in 2014 and 2017 through the "Bright Ideas" Grant. The Biology department seeks a permanent source of funding so that the Health Science Triathlon can be a biennial event that occurs in May of the odd years.

Initiative IV: Two Comprehensive Health Science Centers: Newport Beach Center and Garden Grove Center

Describe how the initiative supports the college mission:
Supports an innovative and student-centered mindset and courses and services that cultivate and guide a diverse student population to complete pathways leading to the attainment of associate degrees, certificates, and career-readiness.

What college goal does the initiative support? Select one
☐ Student Success, Completion, and Achievement
☐ Instructional and Programmatic Excellence

☐ Access and Student Support
☐ Student Retention and Persistence
x Culture of Evidence, Planning, Innovation, and Change
☐ Partnerships and Community Engagement
☐ Fiscal Stewardship, Scalability, and Sustainability

What Educational Master Plan objective does the initiative support? Select all that apply
x Increase student success, retention, and persistence across all instructional delivery modalities with emphasis in distance education.
X Provide universal access to student service and support programs.
X Strengthen post-Coastline outcomes (e.g., transfer, job placement).
X Explore and enter new fields of study (e.g., new programs, bachelor's degrees).
x Foster and sustain industry connections and expand external funding sources (e.g., grants, contracts, and business development opportunities) to facilitate programmatic advancement.
x Strengthen community engagement (e.g., student life, alumni relations, industry and academic alliances).
x Maintain the College's Asian American and Native American Pacific Islander Serving Institution (AANAPISI) designation and pursue becoming a designated Hispanic Serving Institution (HSI).

What evidence supports this initiative? Select all that apply
☐ Learning Outcome (SLO/PSLO) assessment
x Internal Research (Student achievement, program performance)
☐ External Research (Academic literature, market assessment, audit findings, compliance mandates)

Describe how the evidence supports this initiative.
We had almost 8,000 students taking the Health Science Certificate courses in the last four years. Creating easier access to the courses allows more students to take two or more science courses at one center.

Recommended resource(s) needed for initiative achievement:
The rooms on the third floor Science wing at Garden Grove

What is the anticipated outcome of completing the initiative?
Please see also the justification under facilities planning. Having an up-to-date laboratory, with two doors for safety (as the Le-Jao lab has only one) and a prep area (as the Le-Jao has none), would alleviate some of the additional work and travel time for faculty, staff, and students. If there is enough room, additional faculty offices could be made at Garden Grove as well. This would reduce travel costs too of faculty and Instructional Lab Associates between facilities

Provide a timeline and timeframe from initiative inception to completion.
3-5 years

Initiative V: Marketing the Health Science Certificate and ADT Biology

Describe how the initiative supports the college mission:
Supports an innovative and student-centered mindset and courses and services that cultivate and guide a diverse student population to complete pathways leading to the attainment of associate degrees, certificates, and career-readiness.

What college goal does the initiative support? Select one
☐ Student Success, Completion, and Achievement
☐ Instructional and Programmatic Excellence
x Access and Student Support
☐ Student Retention and Persistence
☐ Culture of Evidence, Planning, Innovation, and Change
☐ Partnerships and Community Engagement
☐ Fiscal Stewardship, Scalability, and Sustainability

What Educational Master Plan objective does the initiative support? Select all that apply
x Increase student success, retention, and persistence across all instructional delivery modalities with emphasis in distance education.
☐ Provide universal access to student service and support programs.
x Strengthen post-Coastline outcomes (e.g., transfer, job placement).
☐ Explore and enter new fields of study (e.g., new programs, bachelor's degrees).
☐ Foster and sustain industry connections and expand external funding sources (e.g., grants, contracts, and business development opportunities) to facilitate programmatic advancement.
☐ Strengthen community engagement (e.g., student life, alumni relations, industry and academic alliances).
☐ Maintain the College's Asian American and Native American Pacific Islander Serving Institution (AANAPISI) designation and pursue becoming a designated Hispanic Serving Institution (HSI).

What evidence supports this initiative? Select all that apply
☐ Learning Outcome (SLO/PSLO) assessment
x Internal Research (Student numbers in the onsite science classes)
☐ External Research (Academic literature, market assessment, audit findings, compliance mandates)

Describe how the evidence supports this initiative.
We had almost 8,000 students in our Health Science classes since 2013-2014, yet only a fraction have received the Health Science Certificate. If the students know about the Certificate, then that number scored increase and the number on our Score Card improve.

Recommended resource(s) needed for initiative achievement:
One thousand dollar budget for Web site and flier design and publishing the first year; then $500 budget yearly

What is the anticipated outcome of completing the initiative?
Increased awarding of the Health Science Certificate and the ADTs for transfer.

Provide a timeline and timeframe from initiative inception to completion.
Begin website design now; full marketing with fliers when there is funding.

Initiative VI: BIOTECHNOLOGY LABS/CERTIFICATE

Describe how the initiative supports the college mission:
Supports an innovative and student-centered mindset and courses and services that cultivate and guide a diverse student population to complete pathways leading to the attainment of associate degrees, certificates, and career-readiness.

What college goal does the initiative support? Select one
☐ Student Success, Completion, and Achievement
☐ Instructional and Programmatic Excellence
☐ Access and Student Support
☐ Student Retention and Persistence
x Culture of Evidence, Planning, Innovation, and Change
☐ Partnerships and Community Engagement
☐ Fiscal Stewardship, Scalability, and Sustainability

What Educational Master Plan objective does the initiative support? Select all that apply
☐ Increase student success, retention, and persistence across all instructional delivery modalities with emphasis in distance education.
☐ Provide universal access to student service and support programs.
☐ Strengthen post-Coastline outcomes (e.g., transfer, job placement).
x Explore and enter new fields of study (e.g., new programs, bachelor's degrees).
☐ Foster and sustain industry connections and expand external funding sources (e.g., grants, contracts, and business development opportunities) to facilitate programmatic advancement.
☐ Strengthen community engagement (e.g., student life, alumni relations, industry and academic alliances).
☐ Maintain the College's Asian American and Native American Pacific Islander Serving Institution (AANAPISI) designation and pursue becoming a designated Hispanic Serving Institution (HSI).

What evidence supports this initiative? Select all that apply
☐ Learning Outcome (SLO/PSLO) assessment
☐ Internal Research (Student achievement, program performance)
X External Research (Academic literature, market assessment, audit findings, compliance mandates)

Describe how the evidence supports this initiative.
We have a Biotechnology Certificate but do not have the equipment, space, personnel or updated curriculum to offer the certificate. An institutional decision needs to be made whether to research the need, apply for grants, and to dedicate the space and personnel needed to pursue offering a certificate that is currently in the catalog.

Recommended resource(s) needed for initiative achievement:
Research analysis of the courses, equipment, facilities, and personnel required to offer the Biotechnology Certificate. Could Perkins grants be used for this?

What is the anticipated outcome of completing the initiative?
Either revising the certificate, purchasing the equipment, hiring personnel et cetera to offer the Biotechnology Certificate or a decision should be made to retire the Biotechnology Certificate

Provide a timeline and timeframe from initiative inception to completion.
One year to make decision; If continuing the Biotechnology Certificate, then 2-4 years to revise curriculum, hire personnel (full or part time Instructional Lab Associate; part time faculty), purchase and install equipment. It might be possible to utilize the existing Microbiology lab at Garden Grove on alternate days.

Physical Science There are no proposed "New Initiatives" at this time except for those associated with continuing to improve the instructional content of all courses in the Physical Science.. These include, but are not limited to:

- Establishing "Master Courses" for all online offerings in Astronomy, Chemistry, Geology and Physics
- Ensuring that all online content is current and topical.
- Increasing the use of OER as textbooks for Astronomy, Chemistry, Geology and Physics.
- Increasing the use of online simulations in labs where applicable.
- Creating online lecture and lab content for PHYS 285 (Calculus-Based Modern Physics).

Describe how the initiative supports the college mission:
Supports an innovative and student-centered mindset and courses and services that cultivate and guide a diverse student population to complete pathways leading to the attainment of associate degrees, certificates, and career-readiness.

What college goal does the initiative support? Select one
☐x Student Success, Completion, and Achievement
☐ Instructional and Programmatic Excellence
☐ Access and Student Support
☐ Student Retention and Persistence
☐ Culture of Evidence, Planning, Innovation, and Change
☐ Partnerships and Community Engagement
☐ Fiscal Stewardship, Scalability, and Sustainability

What Educational Master Plan objective does the initiative support? Select all that apply
☐x Increase student success, retention, and persistence across all instructional delivery modalities with emphasis in distance education.
☐ Provide universal access to student service and support programs.
☐x Strengthen post-Coastline outcomes (e.g., transfer, job placement).
☐ Explore and enter new fields of study (e.g., new programs, bachelor's degrees).
☐ Foster and sustain industry connections and expand external funding sources (e.g., grants, contracts, and business development opportunities) to facilitate programmatic advancement.
☐ Strengthen community engagement (e.g., student life, alumni relations, industry and academic alliances).
☐ Maintain the College's Asian American and Native American Pacific Islander Serving Institution (AANAPISI) designation and pursue becoming a designated Hispanic Serving Institution (HSI).

What evidence supports this initiative? Select all that apply
☐ Learning Outcome (SLO/PSLO) assessment
☐x Internal Research (Student achievement, program performance)
☐x External Research (Academic literature, market assessment, audit findings, compliance mandates)

Describe how the evidence supports this initiative.
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Recommended resource(s) needed for initiative achievement:
None required, although the duties of a new FT Geology and FT Physics faculty would include the completion of these tasks.

What is the anticipated outcome of completing the initiative?
Modernized, uniform course content for the Physical Sciences.

Provide a timeline and timeframe from initiative inception to completion.
3-5 years depending on if and when the FT Geology and FT Physics faculty are hired.

Section 6: Prioritization

List and prioritize resource requests

Departmental Requests

Initiative	Resource(s)	Est. Cost	Funding Type	Health, Safety Compliance	Evidence	College Goal	To be Completed by
Yearly Budget. Ongoing Biological Sciences Consumables/Contracts (included is the Additional Current Needs laundry contract) under the Consumables Assessment: Current Needs	General fund	80,000	Ongoing	Yes	Internal Research, SLOs	Student Success, Completion, and Achievement, Student Retention and Persistence	2017
Maintain Lab Equipment in Astronomy, Chemistry, Geology and Physics	Annual Maintenance for Lab Equipment in Astronomy, Chemistry, Geology and Physics	6,000	Ongoing	No	Internal Research, SLOs	Student Success, Completion, and Achievement, Student Retention and Persistence	2017
Maintain chemistry equipment	Chemistry Equipment: 3 Spectrophotometers	6,000	One-time	No	Internal Research, SLOs	Student Success, Completion, and Achievement, Student Retention and Persistence	2017
Ensure classroom safety when conducting labs	Peristaltic pump-allows safer pipetting	3,200	One-time	Yes	Internal Research, SLOs	Student Success, Completion, and Achievement	2018
Increase the number of microscopes to meet course and student demand	Microscopes (4)	$5000	One-time	No	Internal Research, SLOs	Student Success, Completion, and Achievement, Student Retention and Persistence	2018
Build program awareness	Marketing budget	$1000 first year, $500 thereafter	ongoing	No	Internal Research	Fiscal Stewardship, Scalability, and Sustainability	2018
Strengthen the student learning experience with skull and heart models	Skull and heart models	5,000	One-time	No	Internal Research	Student Success, Completion, and Achievement	2018
Maintain lab specimens and ensure classroom safety	-80 degree freezer (12,000) Ice machine (1,000)	13,000	One-time	Yes	Internal Research, SLOs	Fiscal Stewardship, Scalability, and Sustainability	2018
3D printer to use with Art department at NBC	3D printer to use with Art department at NBC	3,000	One-time	No	Internal Research, SLOs	Instructional and Programmatic Excellence	2018
Statistical Analysis Package	Statistical Analysis Package	Less than $1000	Ongoing	No	Internal Research, SLOs	Student Success, Completion, and Achievement	2018
Purchase Heat Blocks	Heat Block	Less than $1000	Ongoing	No	Internal Research	Fiscal Stewardship, Scalability, and Sustainability	2018
Host a Health Science Triathlon	Event funds	$1200	Ongoing	No	External Research	Partnerships and Community Engagement	2019
Increase Biotechnology Equipment to strengthen the program	Increase Biotechnology Equipment	100,000	One-time	No	External Research	Instructional and Programmatic Excellence	2020

Upgrade the Garden Grove Center Labs	Garden Grove Center Labs	TBD	One-time	No	Internal Research,	Student Success, Completion, and Achievement, Access and Student Support ,Fiscal Stewardship, Scalability, and Sustainability	2020
Open a Human Cadaver Lab	Human Cadaver Lab	50,000 for equipment/TBD room renovation	One-time	No	Internal Research	Student Success, Completion, and Achievement, Access and Student Support ,Fiscal Stewardship, Scalability, and Sustainability	2019
Additional lab space at GGC/NBC	Meaure M?	TBD	One-time	No	Internal Research	Student Success, Completion, and Achievement, Access and Student Support ,Fiscal Stewardship, Scalability, and Sustainability	2021

List and prioritize staffing requests. For full-time positions, include a Coast District approved job description.

Initiative	Resource(s)	Est. Cost	Funding Type	Health, Safety Compliance	Evidence	College Goal	To be Completed by	Priority
Maintain lab safety and support sciences courses at the college	Full Time Instructional Lab Associate	70,000	Ongoing	Yes	Internal research SLOs	Student Success, Completion, and Achievement, Instructional and Programmatic Excellence, Access and Student Support, Student Retention and Persistence, Fiscal Stewardship, Scalability, and Sustainability x	Summer 2018	1
Strengthen and expand the Geology department faculty	FT Geology faculty	Current salary	Ongoing	No	Internal Research	Student Success, Completion, and Achievement, Instructional and Programmatic Excellence, Access and Student Support	August 2018	1
Strengthen and expand the Physics department	FT Physics Faculty	Current Salary	Ongoing	No	Internal Research	Student Success, Completion, and Achievement, Instructional and Programmatic Excellence, Access and Student Support	August 2019	2
Strengthen and expand the Chemistry department	FT Chemistry Faculty	Current Salary	Ongoing	No	Internal Research	Student Success, Completion, and Achievement, Instructional and Programmatic Excellence, Access and Student Support	August 2021	3

Prioritization Glossary

Initiative:	Provide a short description of the plan
Resource(s):	Describe the resource(s) needed to support the completion of the initiative
Est. Cost:	Estimated financial cost of the resource(s)
Funding Type:	Specify if the resource request is one-time or ongoing
Health, Safety Compliance:	Specify if the request relates to health or safety compliance issue(s)
Evidence:	Specify what data type(s) supported the initiative (Internal research, external research, or learning outcomes)
College Goal:	Specify what College goal the initiative aligns with
To be completed by:	Specify year of anticipated completion
Priority:	Specify a numerical rank to the initiative

Data Glossary

Enrolled (Census): The official enrollment count based on attendance at the census point of the course.

FTES: Total full-time equivalent students (FTES) based on enrollment of resident and non-resident students. Calculations based on census enrollment or number of hours attended based on the type of Attendance Accounting Method assigned to a section.

FTEF30: A measure of productivity that measures the number of full-time faculty loaded for the entire year at 30 Lecture Hour Equivalents (15 LHEs per fall and spring terms). This measure provides an estimate of full-time positions required to teach the instruction load for the subject for the academic year.

WSCH/FTEF (595): A measure of productivity that measures the weekly student contact hours compared to full-time equivalent faculty. When calculated for a 16 week schedule, the productivity benchmark is 595. When calculated for an 18 week schedule, the benchmark is 525.

Success Rate: The number of passing grades (A, B, C, P) compared to all valid grades awarded.

Retention Rate: The number of retention grades (A, B, C, P, D, F, NP, I*) compared to all valid grades awarded.

Fall-to-Spring Persistence: The number of students who completed the course in the fall term and re-enrolled (persisted) in the same subject the subsequent spring semester.

F2S Percent: The number of students who completed a course in the fall term and re-enrolled in the same subject the subsequent spring semester divided by the total number of students enrolled in the fall in the subject.

Checklist

Program Planning

☐ Internal Analysis
☐ PSLO Assessment
☐ Progress on Forward Strategies

Human Capital Planning

☐ Staffing
☐ Professional Development

Facility Planning

☐ Progress on Forward Strategies

Technology Planning

☐ Progress on Forward Strategies

INSTRUCTIONAL LAB ASSOCIATE, BIOLOGY

Definition

NOTE: This is an instructional support position. This is <u>not</u> a faculty position.

DEFINITION:
Under general supervision, provides instructional assistance and support tasks to students in the Biological Science and Chemistry classes in accordance with assignments and directions from a course instructor or other academic personnel; provides technical assistance to students, faculty, and staff in the use of technology in instructional programs; monitors and reports student progress; maintains Biological Science and Chemistry lab operations; provides instructional support for the students enrolled in Biological Science and Chemistry classes/labs requiring technical competence in basic math, general biology, chemistry, use of instructional equipment and software, and basic academic skills.

DISTINGUISHING CHARACTERISTICS:
Positions assigned to the class of Instructional Associate perform duties to assist and support a classroom instructor or other academic personnel, in a tutorial program, classroom, lab, or office setting. Classification in the instructional associate area requires individual emphasis, based on the instructional assignment. Each specialized emphasis (i.e.: Instructional Associate/ Arts) constitutes a separate classification.

Specific tasks may vary depending upon the subject area and discipline to which assigned. Work is performed within a framework of established procedures which may not require the physical presence of the instructor or other academic personnel.

Positions in this class may exist in any of the instructional departments or divisions. Incumbents in the class of Instructional Associate are expected to have completed a minimum of two years of college with a major in the subject area to which their position is assigned. Recruitment to fill a position in this class should include the instructional area of assignment, such as "Instructional Associate (Art)" or "Instructional Associate (Mathematics)".

EXAMPLES OF DUTIES: Duties may include, but are not limited to, the following:
a. Assist instructional staff with the instruction, demonstration, and presentation of course assignments and materials for groups of students in the Biological Science and Chemistry courses.
b. Assist in the preparation of instructional activities.
c. Assist students with assignments, course content, and study skills; evaluate student work and coordinate appropriate tutorial sessions and supplemental instruction as needed.
d. Assist in the coordination, operation, and maintenance of the science laboratory set up, including preparation of solutions, dispensing chemicals, preparing specimens, setting up equipment, and disposing of chemicals and specimens.
e. Set up and maintain specialized instruments and equipment and present information in a logical, accurate and interesting manner to students.
f. Orient students and new faculty on the procedures used and technology available to facilitate learning.

g. Monitor and record student progress and attendance; prepare and maintain related records and reports; evaluate student needs; confer with instructors regarding student progress.
h. Recommend appropriate instructional materials and technology to be used by students; maintain and test instructional materials and technology to ensure instructional methods and course content is current, accurate, and relevant in accordance with instructor's curriculum guidelines.
i. Demonstrate or describe the proper operation of equipment, instruments and supplies used in lab work.
j. Assist students with technical difficulties regarding assignments.
k. Respond to student questions and provide information regarding subject matter.
l. Research and troubleshoot technical problems when students, staff, and faculty have difficulty with the instructional equipment, course management systems, or log-on procedures.
m. Assist in recruiting, hiring, training, and supervising student assistants.
n. Assist instructorsin preparation of manuals, handouts, and training/teaching materials.
o. Demonstrate and enforce proper health and safety procedures and regulations in the laboratories and ensure that students are aware of such regulations.
p. Perform general clerical functions critical to the maintenance and efficiency of the laboratories.
q. Participate in development of the budget and monitor expenditures.
r. Make minor repairs and adjustments to laboratory equipment, such as microscopes; and arrange for necessary repairs of other equipment.
s. Oversee schedule and training of students and maintain hourly employee records.
t. Maintain accurate records.
u. Consult with vendors regarding supplies, materials and equipment as needed.
v. Monitor inventory and order materials and equipment needed to maintain office, lab, and/or classroom.
w. Participate in department meetings with instructional staff to exchange information, provide periodic reports and to remain current in instructional support techniques and procedures.
x. Perform related duties and responsibilities as required.

Qualifications

MINIMUM QUALIFICATIONS:

Knowledge of:

1. Basic math, general biology and chemistry at the community college level.
2. Supplies and equipment of a life science and chemistry laboratories and record keeping consistent with inventory control.
3. Proper laboratory techniques for preparation and storage of solutions.
4. Appropriate safety precautions and procedures as directed by District Health and Safety Officers.
5. Instructional and tutorial methods and techniques.
6. Student guidance principles and practices.
7. Community college curriculum and educational requirements.
8. Correct English usage, grammar, spelling, punctuation, and vocabulary.
9. Oral and written communication skills.

10. Computer assisted instruction, word processing software, and network applications.
11. Principles and procedures of record keeping.
12. Tools, techniques, equipment, basic study skills, and applicable technology used in the Biological Sciences/Chemistry laboratory.
13. Interpersonal skills using tact, patience and consideration.

Ability to:
14. Properly set up, operate and demonstrate the correct operation/handling of materials and equipment used in biology and chemistry laboratories.
15. Work with biological sciences and chemistry chemicals, specimens, and related equipment.
16. Perform basic math, chemistry calculations, and college level work in assigned academic field.
17. Maintain chemicals and dispose of waste according to procedures specified by District Health and Safety.
18. Supervise the work of student assistants and maintain hourly employee records.
19. Maintain an inventory on a computer in compliance with the Office of Health and Safety.
20. Understand and carry out oral and written instructions.
21. Provide effective instruction and assistance to students enrolled in the biology and chemistry classes.
22. Present and demonstrate instructional materials and tutor in at least one subject area.
23. Assess student achievement and encourage student participation.
24. Troubleshoot and maintain instructional materials and technology.
25. Respond to questions and assist students as needed.
26. Maintain accurate records.
27. Work independently in the absence of supervision.
28. Plan, organize, and schedule a variety of work and activities.
29. Understand and follow oral and written instructions.
30. Recommend appropriate instructional materials and resources.
31. Communicate clearly and concisely, both orally and in writing.
32. Perform basic clerical duties and work with statistical data.
33. Establish and maintain effective working relationships with those contacted in the course of work, including individuals from diverse academic, socioeconomic, cultural, and ethnic and disability backgrounds.

Education and Experience:
34. Completion of twoyears of college with major course work in chemistry or biology or the equivalent (must include organic chemistry and general biology classes).
35. Two years experience in an instructional setting as a tutor or in a similar position.
36. Or, any combination of experience and training that would likely provide the required knowledge and abilities.

LICENSES OR OTHER REQUIREMENTS:
Some positions in this classification may require a valid California driver's license and/or possession of a certificate of completion from an accredited college or agency relative to the assigned area. Continuing education, training or certification may be required.

Conditions of Employment

Employment is on a part-time, temporary basis and contingent upon verification of employment history, background verification as governed under Education Code requirements, eligibility to work in the United States, and approval by the CCCD Board of Trustees. Short term/temporary assignments do not offer fringe benefits or pay for holidays or time not worked and are limited to 28 hours per week.

This is a short-term, CONTINUOUS recruitment for an applicant POOL to fill part-time, temporary, hourly assignments on an as-needed basis. We accept applications all year long. Departments or Divisions will refer to the POOL of applications on file, as needed, to fill temporary assignments.

The normal hours of work will be based on the needs of the department, Monday through Friday. However, some flexibility such as evenings and week-ends will be required to meet the needs of the department. The effective date of employment will be arranged with the supervisor.

- Regular attendance is considered an essential job function; the inability to meet attendance requirements may preclude the employee from retaining employment.
- The person holding this position is considered a mandated reporter under the California Child Abuse and Neglect Reporting Act and is required to comply with the requirements set forth in Coast Community College District policies, procedures, and Title IX. (Reference: BP/AP 5910)
- The Coast Community College District celebrates all forms of diversity and is deeply committed to fostering an inclusive environment within which students, staff, administrators, and faculty thrive. Individuals interested in advancing the District's strategic diversity goals are strongly encouraged to apply. Reasonable accommodations will be provided for qualified applicants with disabilities who self-disclose.

Additional Information

APPLICATION PROCEDURES:

Applications must be received no later than the posted closing date. There are NO EXCEPTIONS. Electronic applications may be completed by visiting www.cccd.edu/employment. Once you have completed an electronic application, you may apply to open positions within the Coast Community College District by submitting the application and all other required materials. Required materials differ for each open position and must be complete when submitted for a specific posting. Instructions for completing applications and applying to posted positions are available online or by calling Applicant Processing at (714) 438-4714.

All application materials become the property of the Coast Community College District and will NOT be copied or returned. Information for TDD users is available by calling (714) 438-4755.

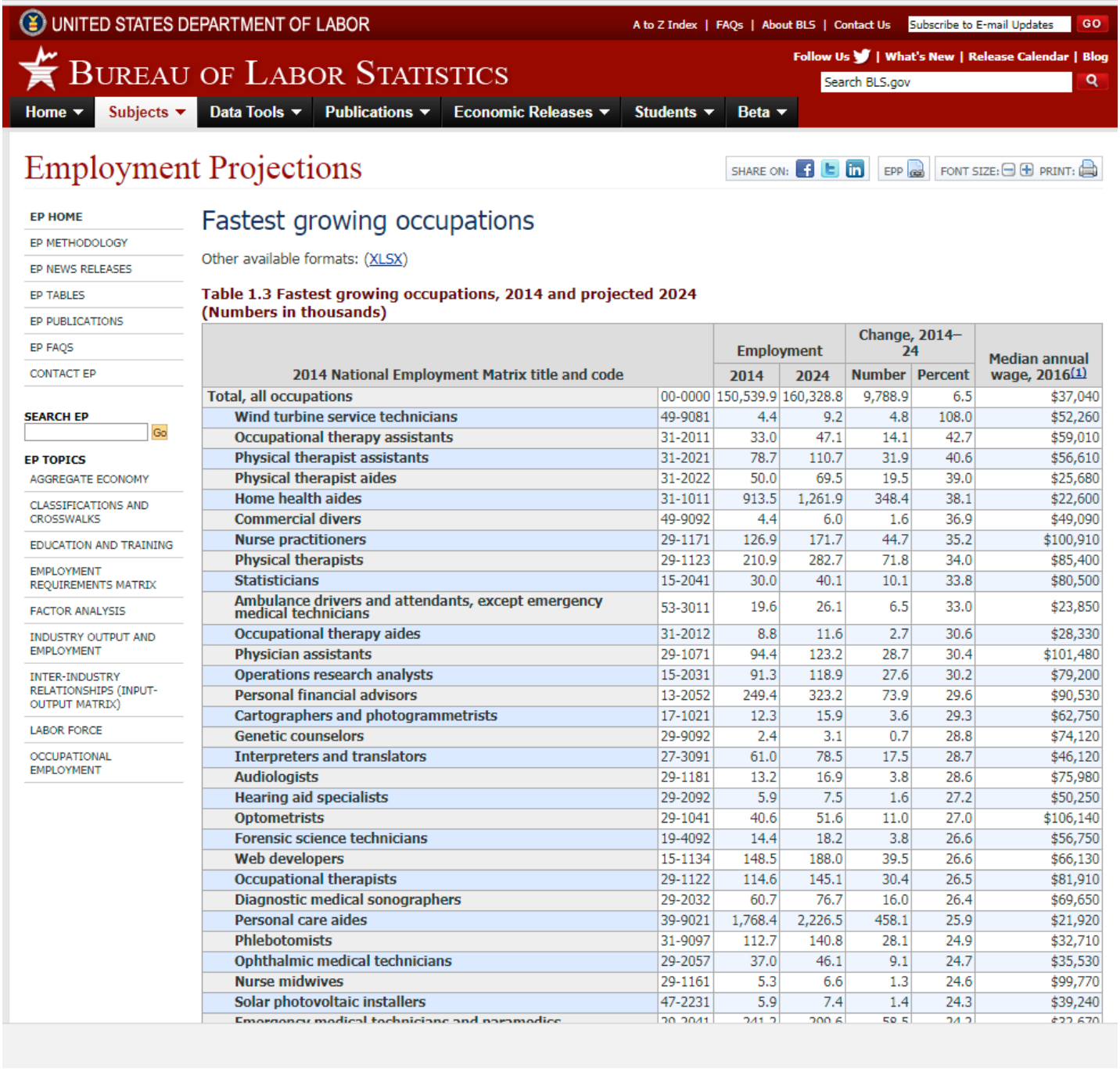
Application Requirements: To be considered for employment you must submit a complete application packet. A complete application packet includes:

1. A complete Classified/Management Employment Application.
2. A current resume (as a separate attachment).

3. A cover letter highlighting your qualifications for the desired position (as a separate attachment).

To ensure consistency and fairness to all applicants, please do not submit materials in addition to those requested. Additional materials will not be considered or returned. Be sure to complete all questions and sections of the application. For questions which may not apply, indicate "n/a" (not applicable). If you do not know an answer, please indicate so, but do not leave any space blank.
All applications will be screened under a process of utmost confidentiality by a committee of representatives from the college community. Please note: Possession of the minimum qualifications does not ensure an interview.

JOB ANALYSIS



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Employment Projections

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CLASSIFICATIONS AND CROSSWALKS
EDUCATION AND TRAINING
EMPLOYMENT REQUIREMENTS MATRIX
FACTOR ANALYSIS
INDUSTRY OUTPUT AND EMPLOYMENT
INTER-INDUSTRY RELATIONSHIPS (INPUT-OUTPUT MATRIX)
LABOR FORCE
OCCUPATIONAL EMPLOYMENT

Fastest growing occupations

Other available formats: (XLSX)

Table 1.3 Fastest growing occupations, 2014 and projected 2024
(Numbers in thousands)

2014 National Employment Matrix title and code		Employment		Change, 2014–24		Median annual wage, 2016(1)
		2014	2024	Number	Percent	
Total, all occupations	00-0000	150,539.9	160,328.8	9,788.9	6.5	$37,040
Wind turbine service technicians	49-9081	4.4	9.2	4.8	108.0	$52,260
Occupational therapy assistants	31-2011	33.0	47.1	14.1	42.7	$59,010
Physical therapist assistants	31-2021	78.7	110.7	31.9	40.6	$56,610
Physical therapist aides	31-2022	50.0	69.5	19.5	39.0	$25,680
Home health aides	31-1011	913.5	1,261.9	348.4	38.1	$22,600
Commercial divers	49-9092	4.4	6.0	1.6	36.9	$49,090
Nurse practitioners	29-1171	126.9	171.7	44.7	35.2	$100,910
Physical therapists	29-1123	210.9	282.7	71.8	34.0	$85,400
Statisticians	15-2041	30.0	40.1	10.1	33.8	$80,500
Ambulance drivers and attendants, except emergency medical technicians	53-3011	19.6	26.1	6.5	33.0	$23,850
Occupational therapy aides	31-2012	8.8	11.6	2.7	30.6	$28,330
Physician assistants	29-1071	94.4	123.2	28.7	30.4	$101,480
Operations research analysts	15-2031	91.3	118.9	27.6	30.2	$79,200
Personal financial advisors	13-2052	249.4	323.2	73.9	29.6	$90,530
Cartographers and photogrammetrists	17-1021	12.3	15.9	3.6	29.3	$62,750
Genetic counselors	29-9092	2.4	3.1	0.7	28.8	$74,120
Interpreters and translators	27-3091	61.0	78.5	17.5	28.7	$46,120
Audiologists	29-1181	13.2	16.9	3.8	28.6	$75,980
Hearing aid specialists	29-2092	5.9	7.5	1.6	27.2	$50,250
Optometrists	29-1041	40.6	51.6	11.0	27.0	$106,140
Forensic science technicians	19-4092	14.4	18.2	3.8	26.6	$56,750
Web developers	15-1134	148.5	188.0	39.5	26.6	$66,130
Occupational therapists	29-1122	114.6	145.1	30.4	26.5	$81,910
Diagnostic medical sonographers	29-2032	60.7	76.7	16.0	26.4	$69,650
Personal care aides	39-9021	1,768.4	2,226.5	458.1	25.9	$21,920
Phlebotomists	31-9097	112.7	140.8	28.1	24.9	$32,710
Ophthalmic medical technicians	29-2057	37.0	46.1	9.1	24.7	$35,530
Nurse midwives	29-1161	5.3	6.6	1.3	24.6	$99,770
Solar photovoltaic installers	47-2231	5.9	7.4	1.4	24.3	$39,240
Emergency medical technicians and paramedics	29-2041	241.2	299.6	58.5	24.2	$32,670

Summary for Coastline Community College
Project:
Quotation: QCA51661.17

Mopec Representative
Marcy Westland
marcy@appliedinst.com
949-661-9900

Per your internet request, we are pleased to present our quotation.

Qty	Product No.	Description	Unit Price	Ext Price
1	KH100	MORGUE REFRIGERATOR (1 BODY) - END OPENING (CONVEYOR)	$10,300.00	**$10,300.00**
CONVEYOR MECHANISMS AND BODY TRAYS ARE INCLUDED				
1	KT400	CONVEYOR MECHANISM END OPENING	$0.00	**$0.00**
1	JC100	STAINLESS STEEL BODY TRAY 23"	$0.00	**$0.00**
LISTED BELOW ARE THE OPTIONAL CHART RECORDER AND ALARM				
1	KO001	DIGITAL HIGH/LOW AUDIO/VISUAL	$850.00	**$850.00**
1	KO002	CHART RECORDER	$1,584.00	**$1,584.00**
			Running Total:	**$12,734.00**
1	HB300	DOWN DRAFT DISSECTING TABLE TILT- ELEVATING	$7,294.00	**$7,294.00**
LISTED BELOW ARE THE OPTIONAL FEATURES TO ENHANCE YOUR DISSECTING TABLE				
1	HO001	BRIDGE STYLE LEG REST	$321.36	**$321.36**
1	HO002	BOOK STAND BRIDGE STYLE	$321.36	**$321.36**

1	BA025	RUBBER HEADREST	$123.86	**$123.86**

All prices are in currency USD ($)

Details of Quotation: QCA51661.17

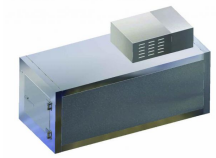
Date: Tuesday, April 04, 2017

Mopec Representative
Marcy Westland
marcy@appliedinst.com
949-661-9900

Quotation Prepared For
Deborah Henry
Coastline Community College
1515 Monrovia Ave
Newport Beach, CA 92663 USA
Phone: (714) 546-7600
Fax:
Email: dhenry@coastline.edu

Customer Facility
Deborah Henry
Coastline Community College
1515 Monrovia Ave
Newport Beach, CA 92663 USA
Phone: (714) 546-7600
Fax:
Email: dhenry@coastline.edu

Qty	Product No.	Description	Unit Price	Ext Price
1	**KH100**	**MORGUE REFRIGERATOR (1 BODY) - END OPENING (CONVEYOR)**	$10,300.00	**$10,300.00**



Dimensions:
External (O.D.): 3' 6" x 8' 0" x 4' 1" - w x d x h
Internal (I.D.): 2' 10" x 7' 4" x 3' 5" - w x d x h

Finishes
Walls: Galvanized/Embossed - 26 Ga. - interior
Galvanized/Embossed - 26 Ga. & St. Stl. Type 304 #4 finish 20 Ga. - exterior
Floors: Galvanized/Smooth - 14 Ga. - interior
Galvanized/Embossed - 26 Ga. - exterior
Ceilings: Galvanized/Embossed - 26 Ga. - interior & exterior
Panel Thickness
Walls: 4" UL Listed Class 1 Foam
Floors: 4" UL Listed Class 1 Foam standard floor 1000 lb/ft² equally distributed (single layer of
1/2" underlayment in floor)
Ceilings: 4" UL Listed Class 1 Foam

Doors
D01:
1 Finished opening 27" x 22" hinged overlap cooler door, 12" sill
2 Hinge- Kason 1346
1 Fasteners - Stainless Steel Screws/Lags for All Door Hardware Int & Ext
1 Special door / jamb contruction - See notes
1 Heated Jamb (4 Sided) W/ Threshold
1 Gasket- Magnetic

Accessories
3 Caulk - Silicone Grey (Tubes) 1 Temp - 1967-3 Light Switch / LED Display
11 Lock Wall Panels to Floor Panels 13 Lock Wall Panels to Ceiling Panels (Factory Ceiling Caps - Standard)
1 Light- 1806LED000 (120v) Fixture (Mounted to Jamb) and Optic Globe(Ship Loose)

NOTE: Locate LED Globe Light Fixture Cented Above Middle Service Door
NOTE: Plywood Blocking (full height) along 3'6" back wall (non door wall) - interior application
NOTE: Locate LED digital therm on top right exterior section of door wall (above service doors)
NOTE: All Service Door Frames/Openings to have Plywood Blocking

Refrigeration Unit Cooler
Manufacturer: Heatcraft
Model: PTN031H6AE
Description: Larkin PTN indoor
Electrical: 115/1/60
Conditions: BTUH: 3476 Room Temp: 39°F Ambient: 90°F

* Includes conveyor mechanism & stainless steel body tray.
* Refrigeration unit ships unassembled, assembly manual included with shipment.

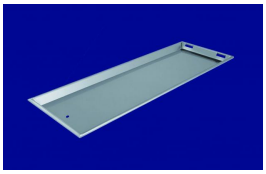
Qty	Product No.	Description	Unit Price	Ext Price

CONVEYOR MECHANISMS AND BODY TRAYS ARE INCLUDED

Qty	Product No.	Description	Unit Price	Ext Price
1	**KT400**	**CONVEYOR MECHANISM END OPENING**	$0.00	**$0.00**

* Stainless Steel frame and support
* Heavy Duty Construction

Qty	Product No.	Description	Unit Price	Ext Price
1	**JC100**	**STAINLESS STEEL BODY TRAY 23"**	$0.00	**$0.00**



* Dimensions: 23" Wide x 77" Long
* All Stainless Steel Construction
* 18 gauge Stainless Steel
* Two (2) Hand Slots on Each End
* Weight capacity 375 Lbs
* Specify With or Without Drain Hole
* **NOTE:** Replacement for JC223 and JC123

Qty	Product No.	Description	Unit Price	Ext Price

LISTED BELOW ARE THE OPTIONAL CHART RECORDER AND ALARM

Qty	Product No.	Description	Unit Price	Ext Price
1	**KO001**	**DIGITAL HIGH/LOW AUDIO/VISUAL**	$850.00	**$850.00**

* High/Low Audio/Visual Temperature Alarm
* Includes Stainless Steel Case/Housing
* Includes Stainless Steel Shelf
* Remote Contacts

Qty	Product No.	Description	Unit Price	Ext Price
1	**KO002**	**CHART RECORDER**	$1,584.00	**$1,584.00**

* 10" Diameter, single Pen 7 Day Chart Recorder
* Mounted in a case (7-day, 24hr & 10" Dia.)

Qty	Product No.	Description	Unit Price	Ext Price

Running Total: **$12,734.00**

Qty	Product No.	Description	Unit Price	Ext Price
1	**HB300**	**DOWN DRAFT DISSECTING TABLE TILT- ELEVATING**	$7,294.00	**$7,294.00**

* Dimensions: 30"W x 86"L x 36"H Lowered height 30 1/2"
* Fully elevated height 44 1/2"
* Table top is 86 " L x 30" W fabricated of 14 gauge type 304 stainless steel with a #4 satin finish.
* Recessed area is 79" x 24"
* The cart elevates and/or tilts at both ends.
* Dual side mounted foot controls.
* Dual locking levers lock all the wheels simultaneously from either end.
* Table top can be lowered in height to 30-1/2" and fully elevated height to 44-1/2".
* Ventilation: Connects to the building exhaust system on one end of the dissecting table.
* The connection can be made to a flexible duct that extends from the ceiling or floor, always opposite the table drain.
* Ventilation Tie-in: Includes (1) 6" diameter stub located on one end of the table.
* Air volume should be adjustable and between 350-500cfm.
* Undercarriage subframe is fabricated of 12 gauge type 304 stainless steel.
* Perforated Grid Plates: Fabricated of 14 gauge type 304 stainless steel with a #4 satin finish.
* Grids are perforated with 1/2" diameter holes on 1" centers.
* 8" diameter casters
* Weight capacity 700 pounds

Qty	Product No.	Description	Unit Price	Ext Price

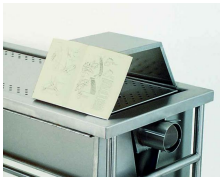
LISTED BELOW ARE THE OPTIONAL FEATURES TO ENHANCE YOUR DISSECTING TABLE

Qty	Product No.	Description	Unit Price	Ext Price
1	**HO001**	**BRIDGE STYLE LEG REST**	$321.36	**$321.36**

* Removable leg rest provided with integral leg stirrups
* See catalog page 295 for further details

Click here for more information about this product on our website

Qty	Product No.	Description	Unit Price	Ext Price
1	**HO002**	**BOOK STAND BRIDGE STYLE**	$321.36	**$321.36**



* Removable book stand w/book ledge.
* Capable of supporting two books, and designed to be concealed under the hood when closed.

Qty	Product No.	Description	Unit Price	Ext Price
1	**BA025**	**RUBBER HEADREST**	$123.86	**$123.86**

* Dimensions: 6" L x 4 1/2" W
* Extra positioning adjustments, deeper curvatures & lighter weight.
* Molded in resilient impervious rubber (black)

All prices are in currency USD ($)

All customers may be subject to applicable sales tax unless certificate of tax exemption is provided.

Quotation & Discount Valid for 90 Days Unless Superseded By Another Quotation.
Terms: Net 30 Days Upon Credit Approval
Transportation: FOB Oak Park, MI
Freight: Pre-Paid and Added to Invoice
Warranty: One-Year
Delivery: INSTRUMENTS
7-10 Days After Receipt of Purchase Order.
STANDARD EQUIPMENT
Our products will ship 60-75 days after receipt of signed approval drawings.
CUSTOM/MODIFIED EQUIPMENT
Our products will ship 90-120 days after receipt of signed approval drawings.

Price as quoted DOES NOT INCLUDE any applicable sales and use taxes, which will be in addition to price quoted unless customer provides certificate of sales tax exemption.

Equipment to be manufactured per the specifications provided in the proposal presented by Mopec, once approval drawings have been completed these shall govern.

Please note that any request for a change in equipment design, or services to be provided, may result in additional charges. These changes and the monetary value associated with them (if any) will be executed through Mopec's Change Directive Form.

PLEASE REFERENCE QUOTE NUMBER WHEN PLACING YOUR ORDER.

Thank You,
Mopec

Nick Milanovic
CUSTOM MODIFIED ESTIMATING
E-mail: nmilanovic@mopec.com
(800) 362-8491 X187

ALL QUOTATIONS ARE SUBJECT TO MOPEC TERMS AND CONDITIONS AS PER ATTACHED

Science Department - 2017 Program Review: Faculty Survey

All Pages
Page 1: Introduction
Q1
Customize

At which location or in which delivery mode are you currently teaching classes in this program. (Mark all that apply, including Military Program classes.)

- Answered: 14
- Skipped: 0

Answer Choices –	Responses –
–	35.71%
Coastline Garden Grove Center	5
–	28.57%
Coastline Le-Jao Center	4
–	42.86%
Coastline Newport Beach Center	6
–	42.86%
Online	6
–	14.29%
Telecourse/Cable/Video	2
–	0.00%
Responses	0
Other (please specify)	
Total Respondents: 14	

Page 2: General Satisfaction
Q2
Customize

Please rate your level of satisfaction with each of the following as related to this program. (Skip any item that is not applicable to you.)

- Answered: 14
- Skipped: 0

	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied	Total
Currency of the curriculum (up-to-date in relation to transfer standards and SLOs)	57.14% 8	42.86% 6	0.00% 0	0.00% 0	14
Variety of classes	42.86% 6	57.14% 8	0.00% 0	0.00% 0	14
Delivery modes appropriate to student needs	57.14% 8	35.71% 5	7.14% 1	0.00% 0	14
Relevance of classes to student needs	64.29% 9	35.71% 5	0.00% 0	0.00% 0	14
Opportunity for faculty to participate in curriculum review and program development	71.43% 10	14.29% 2	14.29% 2	0.00% 0	14
Extent to which faculty and staff meet the needs of culturally diverse students	50.00% 7	42.86% 6	7.14% 1	0.00% 0	14
Extent to which faculty and staff meet the needs of non-traditional students (e.g., older adults, working adults, active duty military, etc.)	57.14% 8	42.86% 6	0.00% 0	0.00% 0	14
Overall quality of the program	57.14% 8	42.86% 6	0.00% 0	0.00% 0	14
Your own success teaching in the program	78.57% 11	21.43% 3	0.00% 0	0.00% 0	14

Comments(1)

Page 3: Resource Satisfaction
Q3
Customize

Please rate your level of satisfaction with each of the following as related to this program. (Skip any item that is not applicable to you.)

- Answered: 14
- Skipped: 0

	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied	Total
Adequacy of instructional facilities	28.57% 4	57.14% 8	14.29% 2	0.00% 0	14
Quality of general instructional equipment (audio-visual, instructor classroom computer and projector, etc.)	38.46% 5	53.85% 7	7.69% 1	0.00% 0	13
Support for the program and classes from Dean and support staff for your discipline	78.57% 11	14.29% 2	7.14% 1	0.00% 0	14
Support for you, your classes, and the program from your department chair	78.57% 11	21.43% 3	0.00% 0	0.00% 0	14
Responsiveness and helpfulness of Coastline's Distance Learning Department in meeting your needs as a DL instructor	58.33% 7	33.33% 4	8.33% 1	0.00% 0	12
Extent to which CANVAS tools and options allow you to teach your class(es) in the way you want	53.85% 7	38.46% 5	0.00% 0	7.69% 1	13

Comments(3)

Page 4: Military
Q4
Customize

Do you teach classes for Coastline's Military Program?

- Answered: 14
- Skipped: 0

Answer Choices –	Responses –
–	35.71%
Yes	5
–	64.29%
No	9
TOTAL	14

Page 5: Military Program
Q5
Customize

Please indicate your level of satisfaction with each of the following items.

- Answered: 5
- Skipped: 9

–	Very Satisfied –	Satisfied –	Dissatisfied –	Very Dissatisfied –	Total –
–					
The way in which you are able to deliver instruction for military students	60.00% 3	40.00% 2	0.00% 0	0.00% 0	5
–					
The support you receive from the Military Program staff	60.00% 3	40.00% 2	0.00% 0	0.00% 0	5

Comments(1)

Page 6: Incarcerated
Q6
Customize

Do any of your classes serve incarcerated students?

- Answered: 14
- Skipped: 0

Answer Choices –	Responses –
–	14.29%
Yes	2
–	85.71%
No	12
TOTAL	14

Page 7: Classes for Incarcerated Students
Q7
Customize

Please indicate your level of satisfaction with each of the following items.

- Answered: 2
- Skipped: 12

–	Very Satisfied –	Satisfied –	Dissatisfied –	Very Dissatisfied –	Total –
–					
The way in which you are able to deliver instruction for incarcerated students	50.00% 1	50.00% 1	0.00% 0	0.00% 0	2
–					
The support you receive from the Incarcerated Service Support Team	50.00% 1	50.00% 1	0.00% 0	0.00% 0	2

Comments(0)

Page 8: Schedule and Delivery Formats
Q8
Customize

Please indicate your preferences regarding scheduling options for courses in this program.

Answered: 14
- Skipped: 0

	Preferred –	OK –	Not Preferred –	Total –
–	78.57%	14.29%	7.14%	
16-week classes	11	2	1	14
–	0.00%	54.55%	45.45%	
12-week classes	0	6	5	11
–	46.15%	46.15%	7.69%	
8-week classes	6	6	1	13
–	0.00%	20.00%	80.00%	
4-week classes	0	2	8	10
–	8.33%	8.33%	83.33%	
Intensive weekend classes	1	1	10	12
–	0.00%	9.09%	90.91%	
Intensive week-long classes that meet daily	0	1	10	11

Comments(1)

Q9
Customize

Please indicate your preferred delivery formats for classes in this program.

- Answered: 14
- Skipped: 0

	Preferred –	OK –	Not Preferred –	Total –
–	61.54%	15.38%	23.08%	
Classroom	8	2	3	13
–	50.00%	42.86%	7.14%	
Online	7	6	1	14
–	23.08%	30.77%	46.15%	
Telecourse/Cable/Video	3	4	6	13
–	30.77%	46.15%	23.08%	
Hybrid (combination of classroom and online)	4	6	3	13

Comments(0)

Page 9: Assessment Methods
Q10
Customize

Please indicate the methods you most often use to measure/assess whether students are achieving the outcomes you expect in your course(s).

- Answered: 14
- Skipped: 0

	Frequently	Sometimes	Rarely	Not at all	Total
Participation	84.62% 11	15.38% 2	0.00% 0	0.00% 0	13
Objective tests (multiple choice, true/false, short answer, etc.)	92.86% 13	7.14% 1	0.00% 0	0.00% 0	14
Written assignments	71.43% 10	28.57% 4	0.00% 0	0.00% 0	14
Essay tests	38.46% 5	38.46% 5	15.38% 2	7.69% 1	13
Skill demonstration	25.00% 3	50.00% 6	16.67% 2	8.33% 1	12
Case studies	16.67% 2	50.00% 6	25.00% 3	8.33% 1	12
Individual projects	33.33% 4	50.00% 6	8.33% 1	8.33% 1	12
Group projects	15.38% 2	53.85% 7	15.38% 2	15.38% 2	13
Student self-report of application of knowledge/skill to daily life	16.67% 2	33.33% 4	25.00% 3	25.00% 3	12
Pre and post tests of abilities	7.69% 1	38.46% 5	23.08% 3	30.77% 4	13
Portfolios	0.00% 0	7.69% 1	23.08% 3	69.23% 9	13
Grading rubrics for assignments/observations	53.85% 7	46.15% 6	0.00% 0	0.00% 0	13

Comments(1)

Page 10: Student Learning Outcomes
Q11
Customize

What steps, if any, have you taken to incorporate

student learning outcomes (SLOs) into your course? (Mark all that apply.)

- Answered: 14
- Skipped: 0

Answer Choices –	Responses –
–	0.00%
I haven't yet identified expected student learning outcomes.	0
–	7.14%
I am attempting to identify expected SLOs but need some assistance.	1
–	0.00%
I am working with other faculty in my discipline to identify expected SLOs.	0
–	42.86%
I have identified expected SLOs.	6
–	85.71%
My course outline has been updated by me or someone else to include expected SLOs.	12
–	42.86%
I have developed a plan for assessing SLOs.	6
–	64.29%
I assess students on expected SLOs no less than once a year.	9
–	42.86%
I use results from SLO assessments to modify my instruction.	6
–	42.86%
I discuss results from SLO assessments with other faculty in my department so that we can make decisions about teaching and assessment, needed resources, planning, and budgeting based on actual learning outcomes.	6

Total Respondents: 14
Page 11: Virtual Library
Q12
Customize

Which style manual or guidelines do you require students to use for research papers?

- Answered: 14
- Skipped: 0

Answer Choices –	Responses –
–	28.57%
MLA	4
–	7.14%
APA	1
–	0.00%
Chicago	0
–	0.00%
Turabian	0
–	7.14%

Custom/Self-Developed (by instructor)	1
–	50.00%
I don't specify a style manual	7
–	7.14%
I don't assign research papers	1
TOTAL	14

Q13

Customize

Which best describes your use of Coastline's Virtual Library?

- Answered: 14
- Skipped: 0

Answer Choices –	Responses –
–	
I use the Virtual Library myself and/or give my students regular or extra credit assignments that require use of the Virtual Library.	14.29% 2
–	85.71%
I neither use the Virtual Library nor require my students to use the Virtual Library.	12
TOTAL	14

Page 12: Virtual Library Use

Q14

Customize

Please rank the reasons that you do not use the Virtual Library or that you do not require your students to use it.

- Answered: 12
- Skipped: 2

–	Primary Reasons –	Secondary Reasons –	Not a Factor –	Total –
–	18.18%	9.09%	72.73%	
I didn't know Coastline had a Virtual Library.	2	1	8	11
–	9.09%	45.45%	45.45%	
I don't know how to access the Virtual Library.	1	5	5	11
–	0.00%	27.27%	72.73%	
The log-in procedure is too complicated.	0	3	8	11
–	9.09%	9.09%	81.82%	
I don't understand the organization of content in the Virtual Library.	1	1	9	11
–	0.00%	18.18%	81.82%	
I can't remember my log-in and password.	0	2	9	11
–	16.67%	8.33%	75.00%	

I do not require research assignments in my classes.	2	1	9	12
–	0.00%	9.09%	90.91%	
I don't have time to review/grade library assignments/research papers.	0	1	10	11
–	0.00%	12.50%	87.50%	
Other	0	1	7	8

Comments(1)

Page 13: Professional Development
Q15
Customize

In which of the following professional development activities have you participated within the past two years? (Mark all that apply.)

- Answered: 14
- Skipped: 0

Answer Choices –	Responses –
–	92.86%
CCC All-College Meeting in Fall and Spring	13
–	42.86%
Discipline-related workshops	6
–	42.86%
Coastline Summer Technology Institute	6
–	35.71%
Other technology-related workshops	5
–	14.29%
Student learning outcomes workshops/training	2
–	21.43%
Other workshops	3
–	28.57%
Membership in professional associations	4
–	35.71%
Professional conferences	5
–	0.00%
Graduate classes/program	0
–	0.00%
Other classes	0
–	35.71%
Professional training, including certification programs	5
–	57.14%
Discipline-related reading	8

–	21.43%
Technology-related reading	3
–	7.14%
None of the above	1
–	7.14%
Other	1

Total Respondents: 14

Q16

Please list any awards, honors, and/or grants you have received in the past three years.

- Answered: 2
- Skipped: 12

RESPONSES (2)

Coast District Foundation Grant 2016
12/19/2016 12:00 PM

Los Angeles Regional Emmy for Best Educational Programming
12/10/2016 3:25 AM

Q17

List the college, district, statewide, and/or professional committees on which you have served during the past three years.

- Answered: 5
- Skipped: 9

RESPONSES (5)

American Association of Clinical Chemistry
1/6/2017 10:02 AM

Academic Senate, Curriculum Committee, SLOs task force, Faculty Success Center Advisory Committee, Enrollment Management Committee (Coastline), Enrollment Management Committee (district); STAR program committees; Guidepathway committees; Professional: Board of Directors, California Association of Neurological Surgeons; Secretary-Treasurer, Western Neurosurgical Society
12/19/2016 12:00 PM

Foundation Technology District EQ Committee Textbook reviewer- McGraw Hill; Kendall Hunt OEI
12/10/2016 3:25 AM

Curriculum Committee at Coastline Academic Senate at another College
12/9/2016 12:03 PM

Professional Development Committee, Student Grievance Committee, Parking Citation Review Committee
12/9/2016 11:57 AM

Q18
Customize

Do you know that Coastline College has funds available for Professional Development for both Full and Part-time Instructors?

- Answered: 14
- Skipped: 0

Answer Choices –	Responses –
–	71.43%
Yes	10
–	28.57%
No	4
TOTAL	14

Q19

What specific types of training or guidance, if any, do you believe would help you to improve the quality of instruction in your classes so that you can better help students achieve desired learning outcomes?

Answered: 8
- Skipped: 6

RESPONSES (8)

Need for instructional lab associates so that our labs can be adequately run.
12/19/2016 12:00 PM

Learning new technology to help students learn subject matter, especially technology that focuses on simulations.
12/16/2016 8:39 PM

Training on incorporating more technology/media into the course.
12/15/2016 1:44 PM

I have found reviewing other instructor's courses and discussing how they structure their content and manage their feedback has been an informative way to improve my own instruction.
12/10/2016 3:25 AM

more training on CANVAS
12/9/2016 5:28 PM

discussion with peers about pedagogical styles
12/9/2016 12:10 PM

Canvas Advance
12/9/2016 12:03 PM

There are still a couple of areas in Canvas where I need more training or review.
12/9/2016 11:57 AM

Q20

How could our Science facilities be improved?

- Answered: 7
- Skipped: 7

RESPONSES (7)

Hire two additional full time Instructional Lab Associates; Create a cadaver lab (pre-OT students need human cadaver experience). Develop lab space in Garden Grove.
12/19/2016 12:00 PM

For health sciences, it would be great if we had access to simulation software that would improve and/or measure students' critical thinking.
12/16/2016 8:39 PM

More lab technicians.
12/15/2016 1:44 PM

Make the SLO evaluation process much easier for teachers at the end of the semester.

12/9/2016 9:26 PM

more facilities (lab space and lab equipment), more fulltime staff maintaining equipment in science department.
12/9/2016 5:28 PM

revision of laboratory handbook including robust upgrades to exercises
12/9/2016 12:10 PM

More good Lab equipments
12/9/2016 12:03 PM
Page 14: Comments
Q21

Are there other courses in this program that you would like Coastline to offer?

- Answered: 6
- Skipped: 8

RESPONSES (6)

Molecular Biology Immunology
1/6/2017 10:02 AM

We are considering pathophysiology and immunology and an environmental biology. In Fall, we will offer Biochemistry for the first time. We also will be adding a molecular biology.
12/19/2016 12:03 PM

Pathophysiology that would be transferable to nursing programs. Perhaps an Advanced Anatomy, a combined Anatomy/Physiology course a combined A+P curse integrating pathophysiology all with an emphasis on applied learning.
12/16/2016 8:55 PM

Medicinal Chemistry
12/15/2016 2:26 PM

Medical terminology.
12/10/2016 11:37 AM

Medical Terminology Online Health Information Technology classes online
12/9/2016 9:28 PM
Q22

As part of this review, the program will be identifying new five-year goals for the program. Please suggest one or more goals that you believe

would be important for the program to pursue.

- Answered: 7
- Skipped: 7

RESPONSES (7)

Development of a cadaver lab Development of lab space at Garden Grove Consideration of hiring full time Engineering Faculty in order to develop a true STEM program.
12/19/2016 12:03 PM

Preparing students for 4-year programs by offering more 2nd and perhaps even 3rd level courses. Preparing students for successful careers in science and healthcare. For the latter, I would like to see more hands-on experience that simulates skills the student will need to know in their chosen profession. This could be accommodated in more advanced level courses. Such experience would help students to be more confident about their career choices and also more marketable. Both student confidence, academic preparation and skills experience would reflect well on Coastline as a serious institution.
12/16/2016 8:55 PM

More hands on demos and workshops
12/15/2016 2:26 PM

Low fee or Open Ed Resources for >85% of courses offered.
12/10/2016 11:37 AM

Additional FT instructors in the physical sciences
12/10/2016 3:26 AM

core classes geared toward biotechnology
12/9/2016 12:10 PM

Create a biology major program that has a waiting list for every class.
12/9/2016 11:58 AM
Q23

Do you have any other comments or suggestions for improving the program?

- Answered: 2
- Skipped: 12

RESPONSES (2)

Enrollment management plan by the college to know how administration wishes to grow the sciences/STEM
12/19/2016 12:03 PM

No.
12/16/2016 8:55 PM

Share Link https://www.research.net/results/SM-9TK3FZWF/ COPY

Share

14 responses

- Survey Templates
- Survey Tips
- Mobile App
- Blog
- Help Center
-

8. Plans & Pricing

Science Department - 2017 Program Review: Student Survey

- QUESTION SUMMARIES
- DATA TRENDS

All Pages
Page 1: Introduction
Q1
Customize

At what instructional setting are you taking your current class(es) in this specific program? (Mark all that apply.)

- Answered: 192
- Skipped: 0

Answer Choices –	Responses –
–	18.75%
On-site only: Coastline Garden Grove Center	36
–	10.42%
On-site only: Coastline Le-Jao Center	20
–	28.13%
On-site only: Coastline Newport Beach Center	54
–	9.38%
Hybrid (part online and part in classroom)	18
–	57.81%
Online	111
–	1.56%
Telecourse/Cable	3
–	5.73%
Responses	11
Other (please specify)	
Total Respondents: 192	

Page 2: Reasons and Expectations
Q2
Customize

Please rank up to three reasons why you are taking classes in this program at Coastline.

- Answered: 171

- Skipped: 21

	1st Reason –	2nd Reason –	3rd Reason –	Total –
–	55.29%	38.82%	5.88%	
To satisfy A.A. degree requirements	47	33	5	85
–	61.72%	27.34%	10.94%	
To satisfy transfer requirements	79	35	14	128
–	29.03%	45.16%	25.81%	
To earn a certificate	9	14	8	31
–	20.00%	34.00%	46.00%	
To prepare for a new job or improve job skills	10	17	23	50
–	15.09%	28.30%	56.60%	
For personal interest	8	15	30	53
–	12.50%	31.25%	56.25%	
Convenience	4	10	18	32
–	44.44%	22.22%	33.33%	
Other	12	6	9	27

Q3
Customize

To what extent do the classes you are taking in this program meet your expectations?

- Answered: 170
- Skipped: 22

Answer Choices –	Responses –
–	47.06%
The classes are even better than I expected	80
–	43.53%
The classes are pretty much what I expected	74
–	9.41%
The classes are not as good as I expected	16
TOTAL	170

Comments(17)

Page 3: Associate in Arts Degree Areas of Emphasis and Majors
Q4
Customize

Please indicate your status or interest in each of

the following A.A. degree Areas of Emphasis.

- Answered: 136
- Skipped: 56

–	Presently working on –	Interested but haven't started yet –	Not interested –	Total –
–	19.23%	19.23%	61.54%	
ADT Biology	20	20	64	104
–	12.63%	15.79%	71.58%	
ADT Chemistry	12	15	68	95
–	9.89%	8.79%	81.32%	
ADT Geology	9	8	74	91
–	6.45%	17.20%	76.34%	
ADT Physics	6	16	71	93
–	6.67%	11.11%	82.22%	
ADT Elementary Education Degree	6	10	74	90
–	7.45%	12.77%	79.79%	
Physical Education and Health	7	12	75	94
–	37.84%	14.41%	47.75%	
Science and Math	42	16	53	111
–	19.81%	21.70%	58.49%	
Health Science Certificate	21	23	62	106

Q5
Customize

Which classes have you taken or need to take at Coastline? (Check all that apply.)

- Answered: 141
- Skipped: 51

–	TAKEN –	NEED TO TAKE –	Total Respondents –
–	64.52%	35.48%	
Astronomy (ASTR 100)	20	11	31
–	76.92%	24.62%	
Biology for Non-Science Majors (BIO 100)	50	16	65
–	32.26%	67.74%	
Cell and Molecular Biology (BIO 180)	10	21	31
–	26.92%	73.08%	
Diversity of Organisms (BIO 185)	7	19	26
–	24.14%	75.86%	

Pharmacology (BIO 200)	7	22	29
–	47.50%	55.00%	
Microbiology (BIO 210)	19	22	40
–	69.64%	30.36%	
Human Anatomy (BIO 200)	39	17	56
–	18.18%	81.82%	
Genetics (BIO 283)	4	18	22
–	63.16%	36.84%	
Chemistry-Introduction (CHEM 110)	24	14	38
–	54.55%	45.45%	
Chemistry Preparation (CHEM 130)	12	10	22
–	18.18%	81.82%	
Survey of Chemistry (CHEM 140)	2	9	11
–	63.89%	36.11%	
General Chemistry A (CHEM 180)	23	13	36
–	33.33%	66.67%	
General Chemistry B (CHEM 185)	10	20	30
–	22.22%	77.78%	
Organic Chemistry A (CHEM 220)	6	21	27
–	23.08%	76.92%	
Organic Chemistry B (CHEM 225)	6	20	26
–	75.00%	25.00%	
Geology-General (GEO 105)	27	9	36
–	50.00%	50.00%	
Geology-California (GEO 115)	10	10	20
–	14.29%	85.71%	
Geology-Historical (GEO 185)	2	12	14
–	38.89%	61.11%	
Marine Science-Introduction (MRSC 100)	7	11	18
–	9.09%	90.91%	
Survey of Physics (PHYS 140)	1	10	11
–	42.86%	57.14%	
Physics-Concepts (PHYS 110)	9	12	21
–	30.43%	69.57%	
Physics-Algebra Based Mechanical (PHYS 120)	7	16	23
–	20.00%	80.00%	
Physics-Algebra Based Electrical (PHYS 125)	4	16	20
–	12.50%	87.50%	
Physics-Calculus Based Mechanical (PHYS 185)	2	14	16

Page 4: General Satisfaction
Q6
Customize

Please rate your level of satisfaction with each of the following as related to classes in this program.

- Answered: 144
- Skipped: 48

–	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied	Not Applicable	Total
Quality of instruction	46.15% 66	44.06% 63	3.50% 5	6.29% 9	0.00% 0	143
Variety of classes	35.97% 50	48.92% 68	9.35% 13	3.60% 5	2.16% 3	139
Relevance of classes to your academic needs	42.55% 60	51.06% 72	2.84% 4	2.84% 4	0.71% 1	141
Adequacy of instructional facilities	42.75% 59	44.20% 61	4.35% 6	2.90% 4	5.80% 8	138
Staff support for the program and classes	44.68% 63	38.30% 54	6.38% 9	7.09% 10	3.55% 5	141
Extent to which faculty and staff meet the needs of culturally diverse students	36.69% 51	38.85% 54	2.88% 4	3.60% 5	17.99% 25	139
Overall quality of the program	45.71% 64	42.14% 59	7.14% 10	5.00% 7	0.00% 0	140
Your own success in the program	49.28% 68	44.20% 61	4.35% 6	2.17% 3	0.00% 0	138

Comments(18)

Page 5: Distance Learning Status
Q7
Customize

Are you taking one or more classes in this program in a distance learning or hybrid format?

- Answered: 146
- Skipped: 46

Answer Choices –	Responses –
–	57.53%
Yes	84
–	42.47%
No	62
TOTAL	146

Page 6: Distance Learning
Q8
Customize

If you are taking a class in this program in a distance learning or hybrid format, please indicate the extent of your satisfaction with each of the following distance learning elements.

- Answered: 77
- Skipped: 115

–	Very Satisfied –	Satisfied –	Dissatisfied –	Very Dissatisfied –	Not Applicable –	Total –
Quality of instruction in my distance learning course	48.05% 37	38.96% 30	3.90% 3	7.79% 6	1.30% 1	77
–	40.79%	43.42%	3.95%	2.63%	9.21%	

Amount of interaction with other students in the class	31	33	3	2	7	76
–	39.47%	40.79%	11.84%	5.26%	2.63%	
Amount of interaction with the instructor	30	31	9	4	2	76
–	47.37%	34.21%	7.89%	6.58%	3.95%	
Speed with which the instructor responds to questions	36	26	6	5	3	76
–	49.33%	30.67%	6.67%	10.67%	2.67%	
Helpfulness of feedback on quizzes, assignments, and/or exams	37	23	5	8	2	75
–	46.67%	38.67%	5.33%	5.33%	4.00%	
Reliability of the technology used to deliver the course	35	29	4	4	3	75
–	52.70%	32.43%	8.11%	4.05%	2.70%	
Adequacy/functionality of the online quiz system	39	24	6	3	2	74
–	33.78%	17.57%	0.00%	0.00%	48.65%	
Adequacy/functionality of Scantron quizzes (if used in your class)	25	13	0	0	36	74
–	36.49%	29.73%	5.41%	2.70%	25.68%	
Availability of technical support, if needed	27	22	4	2	19	74

Comments(10)

Page 7: Student Demographics

Q9

Customize

Age

- Answered: 141
- Skipped: 51

Answer Choices –	**Responses –**
–	0.00%
Under 18	0
–	50.35%
18-30	71
–	36.17%
31-45	51
–	10.64%
46-60	15
–	2.84%
61 or older	4
TOTAL	141

Q10

Customize

Gender

- Answered: 132
- Skipped: 60

Answer Choices –	Responses –
–	34.09%
Male	45
–	65.91%
Female	87
TOTAL	132

Q11
Customize

Ethnicity (Mark all that apply.)

- Answered: 137
- Skipped: 55

Answer Choices –	Responses –
–	5.11%
African-American	7
–	0.00%
American Indian/Native Alaskan	0
–	43.80%
White/Non-Hispanic	60
–	21.17%
Hispanic/Mexican/Latino	29
–	0.73%
Pacific Islander	1
–	18.98%
Vietnamese	26
–	7.30%
Other Asian	10
–	6.57%
Decline to State	9
–	2.19%
Other	3

Total Respondents: 137
Q12
Customize

Primary Language

- Answered: 137
- Skipped: 55

Answer Choices –	Responses –

–	85.40%
English	117
–	4.38%
Spanish	6
–	6.57%
Vietnamese	9
–	3.65%
Responses	5
Other (please specify)	
TOTAL	137

Page 8: Demographics (cont.)
Q13
Customize

Are you in high school?

- Answered: 141
- Skipped: 51

Answer Choices –	Responses –
–	3.55%
Yes	5
–	96.45%
No	136
TOTAL	141

Q14
Customize

Are you active duty military?

- Answered: 139
- Skipped: 53

Answer Choices –	Responses –
–	2.16%
Yes	3
–	97.84%
No	136
TOTAL	139

Page 9: Employment and Education
Q15
Customize

What is your current employment status?

- Answered: 139

- Skipped: 53

Answer Choices –	Responses –
–	21.58%
Not working outside the home	30
–	7.19%
Working as a volunteer (non-paid position)	10
–	21.58%
Working 20 hours or less per week	30
–	15.11%
Working between 21-34 hours per week	21
–	34.53%
Working full-time (35+ hours per week)	48
TOTAL	139

Q16
Customize

What is your highest level of education?

- Answered: 138
- Skipped: 54

Answer Choices –	Responses –
–	0.72%
Less than high school completion	1
–	55.80%
High school diploma (or GED)	77
–	14.49%
Associate in Arts degree (A.A., A.S.)	20
–	22.46%
Bachelor's degree	31
–	6.52%
Master's degree / Professional degree	9
–	0.00%
Doctorate	0
TOTAL	138

Comments(40)

Q17
Customize

Are you currently enrolled at another college in addition to your Coastline classes? (Mark all that apply.)

- Answered: 134
- Skipped: 58

Answer Choices –	Responses –

–	44.03%
No: Enrolled only at Coastline	59
–	17.16%
Golden West College	23
–	0.75%
Irvine Valley College	1
–	26.87%
Orange Coast College	36
–	0.75%
Saddleback College	1
–	3.73%
Santa Ana College	5
–	1.49%
Santiago Canyon College	2
–	11.94%
A four-year college or university	16
–	8.96%
Responses	12
Other community college	

Total Respondents: 134

Page 10: Comments About the Program

Q18

What do you most want to learn or accomplish from taking courses in this particular program at Coastline?

- Answered: 60
- Skipped: 132

RESPONSES (60)

☐

bachelor's degree and get a job.

5/3/2017 8:47 AM

☐

Bio as it pertains to geneticsee and human organ functions

3/17/2017 12:35 AM

☐

To gain foundation.

3/12/2017 12:52 AM

☐

Get into a nursing program

3/6/2017 3:48 PM

☐

I am now done with CCC. Moving on to University. But I feel your school can do better.

3/4/2017 10:51 PM

☐

N/A

3/2/2017 9:49 AM

☐
I want to get good grades, learn quickly and easily.
3/1/2017 4:59 PM
☐
I have taken a lot of course that fits my major by counselor's instruction.
3/1/2017 3:56 PM
☐
I want to accomplish my required chemistry, biology, physics, and mathematics courses with a high GPA and easy to understand classes
2/28/2017 8:13 PM
☐
Mainly, I really just want to exercise my brain and gain knowledge because I am a permanently disabled person/student.
2/28/2017 7:55 PM
☐
I want to be able to communicate well in both English and Spanish.
2/28/2017 6:30 PM
☐
Get my A.A. and work my way up to a bachelors.
2/28/2017 6:14 PM
☐
Gain accreditation
2/28/2017 5:43 PM
☐
I would like to further my knowledge in Chemistry and Biology to better prepare myself for Pharmacy school.
2/28/2017 3:53 PM
☐
A general understanding of biology and physical science
2/28/2017 1:36 PM
☐
I want to master child development caeer
2/28/2017 1:27 PM
☐
Learn all I can in computer science. Cisco
2/28/2017 11:12 AM
☐
acceptance into a graduate program (physician assistant)
2/28/2017 11:02 AM
☐
I would like to earn an AA degree and complete all of the pre requisites for a field in the medical field.
2/28/2017 10:57 AM
☐
Get my AA Degree
2/8/2017 12:31 PM
☐
The program does not warrant further consideration. The quality is poor as are the instructors.
2/1/2017 10:48 AM
☐
I want to recall information that satisfy the learning objectives.
1/19/2017 9:30 PM
☐

To know after 20 years of I still was able to do well in school, and then pursue a career.
1/19/2017 2:16 AM

I am most interested in Psychology and Biology. I want to achieve a greater understanding of the human mind.
1/17/2017 3:14 PM

Getting my A.S. and transfering for my B.S.
1/13/2017 2:10 PM

I just want to transfer.
1/11/2017 12:16 PM

I want to learn more about helping the public, which is why I want to pursue a career as a social worker.
1/10/2017 6:00 PM

Needed for graduation (completion of science and lab)
1/9/2017 8:37 PM

To obtain my degree, but also to increase my knowledge in various subjects.
1/9/2017 7:16 PM

The basics so that I can pass the class to obtain my degree.
1/9/2017 9:38 AM

Complete lower level required courses for bachelor's degree program
1/8/2017 7:16 AM

I am taking pre-requisite courses for nursing programs
1/7/2017 11:11 PM

Be equipped to transfer to a 4 year university for engineering.
1/7/2017 3:02 PM

I want to accomplish the completion of the transfer program to work on my career path.
1/7/2017 2:08 PM

Very interested in pursuing additional math and science classes
1/6/2017 8:49 PM

Understanding the class material and be able to apply it after class ends
1/6/2017 6:48 PM

earn RRT credential
1/6/2017 5:14 PM

I am taking classes that i have a personal interest in.
1/6/2017 1:39 PM

Readiness for nursing program
1/5/2017 10:42 PM

Meet the requirements without having to jump through hoops and leave the guessing up to me as to what I am learning about.
1/5/2017 1:19 PM

I want to learn more about biology and medicine because I am a medical editor.
1/5/2017 11:45 AM

Computer technology
1/5/2017 9:05 AM

A general knowledge of Geology and Biology.
1/5/2017 7:00 AM

Everything having to do with histo technology.
1/5/2017 12:02 AM

Needed class as a prerequisite for physical therapy school.
1/4/2017 11:45 PM

I want to gain more knowledge pertinent and beneficial to my chemical engineering major.
1/4/2017 10:04 PM

Taking this to transfer to CSUF
1/4/2017 9:28 PM

I want to earn a high GPA and transfer to Penn State.
1/4/2017 7:18 PM

I wanted to complete my science prereqs at Coatline
1/4/2017 4:53 PM

I want to learn lots of things about science. I want to be interested while earning my degree.
1/4/2017 4:16 PM

Q19

What has been your most positive experience in any of the Coastline classes you have taken in this particular program?

- Answered: 64
- Skipped: 128

RESPONSES (64)

That the system is 100% busted and feels more like a business and can be exploited because no one gives a fuck to prevent students from looking up the easiest teachers that will give you easy A's with no effort involved. I've literally been on the honor role since I started going to college and I've probably put in half the effort most students do.
5/3/2017 8:47 AM

☐
The professor was very attentive
3/17/2017 12:35 AM
☐
My Prof. and the flex online classes. The staff in counseling,Faide,and admissions.
3/12/2017 12:52 AM
☐
Anatomy and physiology. I like the teacher Professor Deborah Henry.
3/6/2017 3:48 PM
☐
Physiology class in the Westminster Campus was good. Also the online math classes are decent.
3/4/2017 10:51 PM
☐
The ABI Program & Geology 100
3/2/2017 9:49 AM
☐
My onsite speech class was good. My last history class with Ms. Enomoto - she was fabulous. Good extra information that made sense, responded quickly, and graded assignments quickly with comments that I could use on the next assignment. Mr. Tim Garvin - does not respond, takes forever grading, no comments on why he deducts points, to improve next time, all assignments are just writing, writing, writing - this is history, and you would think it was an english writing class. I need the class, but dropped him because of poor communication, boredom of writing everything, and failure to respond or grade timely. Never will take his class again. Ms. Enomoto will be my choice. I actually learned something!
3/1/2017 4:59 PM
☐
Biology, English 99, and Vietnamese are the course that I like the most.
3/1/2017 3:56 PM
☐
My teachers have all been very motivating and inspiring
3/1/2017 7:19 AM
☐
The amount of time given for assignments/The teachers' flexibility
2/28/2017 8:13 PM
☐
It's hard to choose just one. The dedication and devotion of the professors to help you through your learning process and the guided staff aiding with keeping you on track or working with you to achieve your goals.
2/28/2017 7:55 PM
☐
I just completed the best English class C102 with professor Davis (I believe). This class was AWESOME!! He should be the poster for how professors move their classes by inspiring students while making them work their butts off. The best class I've probably ever had.
2/28/2017 6:30 PM
☐
Convenience of time I can take my online courses.
2/28/2017 6:14 PM
☐
The availability of classes and simplicity of courses
2/28/2017 5:43 PM
☐
My most favorite class was Microbiology with Fauce. I was taking it as a prerequisite for pharmacy school. I took the class the semester after I received my Bachelors in Health Science. Taking Microbiology really

made me think about how interested I was in Biology, a subject that I once hated before. I would have switched to becoming a Biology major if I had not already received my Bachelors in Health Science.
2/28/2017 3:53 PM

I love the small campus and how materials and classrooms are up to standard with equipment.
2/28/2017 1:37 PM

Loved the geology class!
2/28/2017 1:36 PM

I developed my love of learning and gained self- confidence through learning and developing my knowledge in computer, English , and Math.
2/28/2017 1:27 PM

They are very easily manageable, and very easy to navigate.
2/28/2017 12:06 PM

Most of the professors are very supportive and helpful.
2/28/2017 11:33 AM

Great class sizes. Great teachers.
2/28/2017 11:12 AM

amazing professors
2/28/2017 11:02 AM

The amount of help that has been offered. It is very impressive how much help that is offered.
2/28/2017 10:57 AM

I can work at my own pace
2/8/2017 12:31 PM

None.
2/1/2017 10:48 AM

The online discussions. I like the interaction between the classmates.
1/19/2017 9:30 PM

The way that they are set up, make it very easy to learn, and they are flexible to scheduling.
1/19/2017 2:16 AM

This is my first year at Coastline, my first online class experience, and my first science class since graduating high school over forty years ago. I have had many positive experiences in this program. I think being able to email the professors and having them get back to me so quickly was amazing. Also in my Intro to Biology class with Professor Warwick, I really liked the choices he gave us to research on a light level and then discuss in the discussion forums. It was really interesting and I had heard of the Human Genome Project, and the Microbiome but I wouldn't have taken the time to look into them on my own. Also choosing an animal and discussing its evolutionary adaptations was interesting and no pressure. I found being able to share our thoughts, opinions and ideas a very positive and exciting.
1/17/2017 3:14 PM

Learning interesting things.

1/13/2017 2:10 PM

Teachers who care really create the best environment.
1/11/2017 12:16 PM

I took a class in chemistry and
1/10/2017 6:00 PM

Learning about real-life places such as the National Parks made it more interesting and relevant.
1/9/2017 8:37 PM

Too numerous to mention - many positive experiences in each class I took, from interesting assignments to encouragement from the teachers. One that stands out is one class that let us work somewhat at our own pace, but still with due-dates that could be flexible. This took the pressure off if running late on an assignment, but more importantly allowed students to move ahead at a more accelerated pace without holding them back.
1/9/2017 7:16 PM

The Instructors were available to assist me when I did not understand the material.
1/9/2017 9:38 AM

The flexibility online courses allow
1/8/2017 7:16 AM

The professors are by far the most caring and committed group I have had
1/7/2017 11:11 PM

One time my chemistry professor put sodium in water outside the lab and the whole building had to evacuate.
1/7/2017 3:02 PM

Learning of the subjects and working with teachers and classmates.
1/7/2017 2:08 PM

Very easy and straightforward
1/7/2017 1:56 AM

I found my Geology class extremely interesting. There was a slight learning curve with the application (canvas) but once that was overcome it was terrific.
1/6/2017 8:49 PM

Wonderful instructor who really cares about her students and teaches the material in a way that students can continue to apply it after class ends
1/6/2017 6:48 PM

easy communication
1/6/2017 5:14 PM

Dr. Henry was amazing. She made anatomy and physiology fun courses to take and made them geared toward health sciences (which the majority of the class were heading into). She made the material understandable and gave plenty of opportunity to succeed.
1/5/2017 10:42 PM

None.
1/5/2017 1:19 PM

My instructors have been great - helpful and knowledgeable.
1/5/2017 11:45 AM

There were stand out professors who really knew their stuff and cared about giving students the information that they needed to prepare them for careers in the medical field. Dr. Fauce is by far one of the best professors at coastline. He is fair, concise, a great instructor who knows how to convey the information to students and is always on top of grading/giving feedback. The work completed in the course was useful.
1/5/2017 11:34 AM

On-line classes are much more efficient than traditional brick and mortar. You can't get behind if you want to pass.
1/5/2017 9:05 AM

The interaction with Curtis Williams in Geology that on a weekly basis went beyond the published course to explain concepts. He really helped cut through the confusing concepts.
1/5/2017 7:00 AM

Everything is online. Harder to go to school when you work odd hours or work full time.
1/5/2017 12:02 AM

I can work on the assignments outside of the classroom.
1/4/2017 11:45 PM

Q20

If there are other courses or degree programs that you would like Coastline to offer, please provide your suggestions below.

- Answered: 40
- Skipped: 152

RESPONSES (40)

Would be nice if some computer science courses existed that are articulated with CSUF
5/3/2017 8:47 AM

More evening science courses for working people like me.
3/4/2017 10:51 PM

Dental, Ophthalmology, and Veternarian Programs
3/2/2017 9:49 AM

Radiology degree, ultrasound degrees.
3/1/2017 4:59 PM

☐
Natural Sciences
2/28/2017 8:13 PM
☐
Truly, Coastline has a great program set up. I'm enjoying myself.
2/28/2017 7:55 PM
☐
None
2/28/2017 5:43 PM
☐
I would like Coastline to offer Biochemistry since that is a prerequisite for some pharmacy schools and a lot of community colleges don't offer the course.
2/28/2017 3:53 PM
☐
I have a brother that would like you to offer Administration of Justice
2/28/2017 1:36 PM
☐
No
2/28/2017 1:27 PM
☐
Apple computer classes. That way students can learn both PC and Apple.
2/28/2017 11:12 AM
☐
more upper level health courses (pathophysiology, biochemistry, immunology, etc.)
2/28/2017 11:02 AM
☐
I would like to see them offer a nursing program. The local junior colleges have a waiting list that is years long.
2/28/2017 10:57 AM
☐
Health Care Administration Medical Transcription Medical credentialing
2/8/2017 12:31 PM
☐
Improve the overall structure from top down.
2/1/2017 10:48 AM
☐

1/19/2017 9:30 PM
☐
A water tech course either in distribution, and or waste management.
1/19/2017 2:16 AM
☐
I am too new to be able to suggest anything.
1/17/2017 3:14 PM
☐
Fire Technology
1/13/2017 2:10 PM
☐
Make sure your physics is transferrable to UCs
1/11/2017 12:16 PM
☐
I want to take courses to become a pediatric nurse.

1/10/2017 6:00 PM

Photography Anthropology
1/9/2017 7:16 PM

Urban Planning and Community Development.
1/9/2017 9:38 AM

Engineering related courses such as graphics (CAD, MATLAB, CIVIL3D, etc) would be great. Additionally, a statics class.
1/7/2017 3:02 PM

n/a
1/6/2017 5:14 PM

No
1/5/2017 1:19 PM

medical transcription
1/5/2017 11:45 AM

Work-study, internship, apprenticeship in Information Technology
1/5/2017 9:05 AM

I personally would like additional courses that would further address Geological soil issues in California. I have employment opportunities regarding methane barriers necessary in downtown Los Angeles and Marina Del Rey and compaction/ stability issues thru-out So. Cal.
1/5/2017 7:00 AM

Speech online, histo technology courses. Different allied heraldry classes.
1/5/2017 12:02 AM

N/A
1/4/2017 10:04 PM

Nursing
1/4/2017 4:57 PM

Pharmacology. The AA RN programs I am applying to don't accept your course
1/4/2017 4:53 PM

Definitely all medical prerequisites classes!
1/4/2017 4:12 PM

no
1/4/2017 3:00 PM

No
1/4/2017 1:28 PM

RN PROGRAM!
1/4/2017 12:23 PM

Chemistry for teachers each semester or at leat annually
1/4/2017 11:59 AM

Child development Social Work More Sociology classes
1/4/2017 11:35 AM

Child development classes
1/4/2017 10:25 AM

Q21

If you have any comments or suggestions for improving this particular program, please provide them below.

- Answered: 35
- Skipped: 157

RESPONSES (35)

There's simply a billion and a half things I could say about how to make the college experience better for everyone involved but my suggestions are most likely to be ignored, so I'm not going to waste effort typing them up.
5/3/2017 8:47 AM

It would be nice if there were more anatomy classes offered at the Newport location. Please add another lab. The demand for Human Anatomy classes is way more than the supply of them in Orange County. I live 40 minutes away from Coastline and Human Anatomy availability was the whole reason why I joined this school.
3/6/2017 3:48 PM

Please get better quality teachers.
3/4/2017 10:51 PM

Change the BlackBoard to be consistent with Orange Coast College
3/2/2017 9:49 AM

Extend time of online courses to overlap weekends for us working people, especially working with children. Will create less stress, and better timing to be able to handle the workload, and do better.
3/1/2017 4:59 PM

All is well. The program is working for me. Thank you.
2/28/2017 7:55 PM

Be sure all educators really enjoy working with people and want to be bothered even if someone is struggling.
2/28/2017 6:30 PM

None

2/28/2017 5:43 PM

I would like Coastline to increase the number of classes for some courses such as Diversity of Organisms. There is usually only one class offering each semester so the class fills up really quickly or it becomes a problem when the timing conflicts with another course.
2/28/2017 3:53 PM

If I have any complaints, it would pertain to Biology required reading which averaged 5-10 chapters PER WEEK! There is a lot of information to process and it was almost impossible to do a thorough job while carrying a full load. My class was a distance learning class. I would suggest when selecting materials for instruction, that textbooks that contain 200-300 pages of reading for ONE week be eliminated as it is difficult to get the reading completed AND participate effectively in discussion in 2-3 days.
2/28/2017 1:36 PM

I just need instructors to have better understanding to the diversity of students they teach. Some instructors are not flexible , and they are busy with other stuff they don't respond to e-mails in a timely fast way.
2/28/2017 1:27 PM

N/A
2/28/2017 11:12 AM

Coastline has been a very positive experience for me.
2/28/2017 10:57 AM

No
2/8/2017 12:31 PM

Administrators that are more qualified. Instructors that actually teach.
2/1/2017 10:48 AM

1/19/2017 9:30 PM

Just enjoyed the classes so far, have wished I'd done better last semester but wasn't that bad.look forward to getting my degree and moving on in life.
1/19/2017 2:16 AM

I only have two suggestions. First, I would ask that we could be informed of which textbooks will be used for a course as soon as the course is put up. My first semester I didn't know what books I needed until just days before the class started. This semester is no different. Classes start in just 12 days and still I don't know what books will be used. Knowing what textbook will be required, we can see if we can purchase it used or borrow from someone or search for a better price. We can have all of our materials and have reviewed our books before class starts instead of having to rush or have books be sold out and have to start classes with no books. We could also make the choice of which class to take if we know what book is required because one of our roommates may have that book from the semester before and we can borrow it.Both semesters I looked to see what books my classes were using because I was taking two classes that my roommate had just finished, so I could choose the one using the book my roommate just used, but the information wasn't available and so had to sign up hoping the book will be one I can get. I just think that when a Professor commits to teaching a class and it is offered, then the book that is required should not be kept a secret until days before the class starts. My second suggestion is that Pearson doesn't charge extra for the labs in My Lab and Mastering, but that they offer them included in the price you already have to pay for online access to the MyLabs. It is already expensive to need the book and the online component but charging extra for those labs should not be allowed. We have to pay for the textbook and then also for

online access to the Pearson My Labs and Mastering and then $75.00 more for the labs or $16.00 per lab and if you don't do those labs your grades a greatly affected. Near the end of the semester my Professor sent out notifications and emails encouraging students to get those labs done, so I imagine a lot of students couldn't afford to do them.I think there were five labs. I had to pay for mine one at a time and seriously considered not doing a couple of them because you pay for the lab and then it glitches and doesn't work and then you spend hours online with tech support. I was late on two labs because I needed tech support since they weren't working. There were lots of complaints those "additional" labs weren't working properly. The online My Labs and Mastering component was great and worked perfectly and was an enormous help in understanding and using the material presented in the textbook.It was just the "additional" labs that didn't work properly. Or maybe just don't use those at all. I think we could have mastered everything without them or found free versions elsewhere online, which is what I had to do anyway a couple of times when the labs I paid for glitched and didn't work.
1/17/2017 3:14 PM

❑

Lab etiquette needs work -- especially for chem 180.
1/11/2017 12:16 PM

❑

No, everything have a well layout.
1/10/2017 6:00 PM

❑

One suggestion would be for a the professors to post the text books sooner in their class listings - this gives the student more time to acquire it if they need to order online. Waiting to the last minute is frustrating and makes the student fall behind if they have to try to locate their materials after class has started and they are out at the book store. Also, for the professors to have all of their syllabus for their class up and readable by the student at the first day of class would be appreciated. It is a little nerve-wracking to be wondering what will be transpiring in the class, especially if you can't continue ahead to compensate for times when you may fall behind. Another suggestion I have is for the teachers to use Canvas as much as possible as it is more convenient for the student to be able to check their canvas calendar and show all assignments for all classes instead of having to check in different locations or leave canvas and utilize other software for turning in papers. Pearson works well most of the time, but often is slow to load and has glitches sometimes making it faster to read a printed text then to wait for the next page to load, which can be frustrating when you only have so much time to read. But when it works smoothly, it is a nice service.
1/9/2017 7:16 PM

❑

n/a
1/9/2017 9:38 AM

❑

I found taking a 5 unit Calculus class and working 45+ hours a week was too difficult, which was hard for me to admit because I was enjoying it....just couldn't keep up. I'm going to try again in a couple of semesters.
1/6/2017 8:49 PM

❑

n/a
1/6/2017 5:14 PM

❑

Better communication and perhaps slide shows for your students.
1/5/2017 1:19 PM

❑

I think it is important to have students give feedback about their learning experience every semester. This is how professors are kept accountable. When I taught as a graduate student and when I did my undergraduate and graduate career, we all knew that we got performance reviews annually and student filled out surveys regarding the class each semester. It helps the professor understand where they are doing well and where they are lacking, it is not punitive, it is direct feedback which benefits the instructor and

students who are there to learn. In the 3 years that I spent taking classes here, I have only completed 1 feedback form. These feedback forms should be done towards the end of the semester no earlier than 10 weeks into the course because there may have been no exams or feedback given yet in regards to where a person stands in the class.
1/5/2017 11:34 AM

The Geology courses were well designed. The Geology 105 lab kit however needs clear color photographs in order to accurately identify rocks and minerals. I had to download and print my own pictures. Also there were topographical maps with errors and missing details.
1/5/2017 7:00 AM

N/a
1/5/2017 12:02 AM

N/A
1/4/2017 10:04 PM

If there is a chance I can appeal my physiology grade please let me know. I never saw a graded exam from her I had no idea what she gave points for or what she took points off for. There was no chance of extra credit and we didn't know where we stood at the time we took the final. We also had to do a ten page research paper using ten publications for sources. This was excessive in a summer course considering her style of grading. Horrible.
1/4/2017 4:53 PM

educated professor gave fair grades lol
1/4/2017 3:00 PM

No
1/4/2017 1:28 PM

none
1/4/2017 11:35 AM

N/A
1/4/2017 10:25 AM

Evaluate professors even if they have tenure.
1/4/2017 10:17 AM

- Survey Panel
- App Directory
- Online Forms
- Solutions
- Overview
- Enterprise Survey Platform
- Customer Experience
- Employee Engagement
- Content Marketing
- Application Management
-

6. Examples
   - Survey Types
   - Academic Research
   - Quizzes
   - Customer Satisfaction
   - Education
   - Employee
   - Healthcare
   - Market Research
   - Non Profit
   - Events
   -
7. Resources
   - Customer Stories
   - Survey Templates
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   - Mobile App
   - Blog
   - Help Center
   -
8. Plans & Pricing

COAST COMMUNITY COLLEGE DISTRICT
invites applications for the position of:

Instructor, Physics
5-G-18

SALARY: $4,112.83 - $9,805.42 Monthly
$49,354.00 - $117,665.00 Annually

OPENING DATE: 12/19/16

CLOSING DATE: 02/08/17 11:59 PM

DEFINITION:

THE POSITION

The physical science department is currently seeking a full-time tenure track Physics Instructor commencing with the 2017 fall semester. The primary teaching assignment involves instruction in physics and astronomy lecture and laboratory courses. This assignment also includes curriculum and program development, participation in department, division, college committees, and participatory governance activities assuming leadership roles both within the department and in the institution as a whole; collaboration across disciplines and the leveraging of student support resources; and participation in ongoing professional development.

The assignment may be day, evening, weekend, online or off campus and is subject to change as needed. The ideal candidate for this position embraces the overall mission of Golden West College and the Coast Community College District, with a clear, focused commitment to supporting teaching and academic excellence, and student learning and success through the work of physics.

Examples of Duties: Duties may include, but are not limited to, the following:

1. Provide instruction in the Physics courses and their associated laboratories in accordance with established course outlines. Astronomy courses may also be assigned.
2. Provide leadership in the development and revision of Physics/Astronomy curriculum.
3. Participate in curriculum development, implementation, and evaluation; participate in and develop programs to measure student performance.
4. Maintain current knowledge in the subject matter areas.
5. Maintain appropriate standards of professional conduct and ethics.
6. Fulfill the professional responsibilities of a full-time faculty member including, but not limited to the following: teach all scheduled classes unless excused under provisions of Board Policy; follow the department course outlines; keep accurate records of student enrollment, attendance, and progress; submit student grades according to established deadlines; post and maintain scheduled office hours; participate in departmental meetings and college and/or district- wide activities and committees as assigned.
7. Assignment may include day, evening, weekend, and online sections.

QUALIFICATIONS:

Minimum Qualifications:

1. Must meet one of the following qualifications under (a) through (d):
    a. Possess the California Community College Teaching Credential for this subject area.
    b. Possess a Master's degree from an accredited institution in physics, astronomy, or astrophysics.
    c. Possess a Bachelor's degree from an accredited institution in physics or astronomy **AND** a Master's degree in engineering, mathematics, meteorology, or geophysics.
    d. Or, possess a combination of education and experience that is at least the equivalent to the above. Candidates making an application on the basis of equivalency must submit an Application for Equivalency (located at www.cccd.edu/employment) in addition to all other required materials.

2. Evidence of a sensitivity to, understanding of, and the ability to manage the classroom environment AND effectively provide instruction to community college students of diverse academic, socioeconomic, cultural, disability, and ethnic backgrounds.

Desirable Qualifications:

1. Evidence of an ability to contribute to campus and district-wide professional responsibilities and activities.
2. Evidence of an ability to complement existing staff, student and community demographics in terms of professional and personal skills.
3. Possession of a Master's or Doctorate degree in Physics.
4. A minimum of two years of recent experience teaching Physics at the post-secondary level. Recent experience and demonstrated abilities in teaching lectures and associated laboratories in college-level Physics, preferably at several levels which may include general education Physics, Physics for Life Sciences, and Calculus-based Physics for science majors.
5. Experience in teaching Astronomy is desirable.
6. Recent experience in using a variety of modern physics instrumentation and computer-based applications for the physics curriculum.
7. Experience or training that illustrates familiarity with current theories and methodologies for teaching Physics.
8. Desire and demonstrated ability to participate actively in department, division, and college committees and in the shared governance of Coast Community College District.
9. Desire and evidence of an ability to take on leadership roles both within the department and in the institution as a whole.
10. Evidence of an ability to address the instructional needs of a diverse and frequently underprepared student population.
11. Evidence of an ability to adapt teaching pedagogy to the knowledge level (developmental through transfer) and personality of each individual and class.
12. Evidence of outstanding achievement as a student or instructor, or other special qualifications, awards, publications, workshops, etc.
13. Evidence of participation in student success initiatives in a post-secondary setting.
14. Evidence of an ability to communicate effectively both orally and in writing.

CONDITIONS OF EMPLOYMENT:

Start Date: Fall Semester (August 2017)

For a full-time, two-semester position, a maximum starting range of $49,354 to $84,144 is offered, based on the 2016-2017 salary schedule of $49,354 to $117,665. In addition, an annual stipend of $2,878 is offered for possession of an earned doctorate from an accredited institution. The District provides medical, dental, and vision insurance for the employee and eligible dependents and life insurance for the employee.

- Regular attendance is considered an essential job function; the inability to meet attendance requirements may preclude the employee from retaining employment.
- The person holding this position is considered a mandated reporter under the California Child Abuse and Neglect Reporting Act and is required to comply with the requirements set forth in Coast Community College District policies, procedures, and Title IX. (Reference: BP/AP 5910)
- The Coast Community College District celebrates all forms of diversity and is deeply committed to fostering an inclusive environment within which students, staff, administrators, and faculty thrive. Individuals interested in advancing the District's strategic diversity goals are strongly encouraged to apply. Reasonable accommodations will be provided for qualified applicants with disabilities who self-disclose.

Application and required materials must be electronically submitted on-line at http://www.cccd.edu/employment by the indicated closing date. Incomplete applications and application materials submitted by mail will not be considered.

ADDITIONAL INFORMATION:

ATTENTION: Before applying, please be sure to review the Coast Colleges District Board Policy regarding Nepotism (BP 7310) to check if your application may be impacted. If you have any questions, please contact HR Recruitment at 714-438-4714 or 714-438-4716.

APPLICATION REQUIREMENTS: To be considered for employment you must submit a COMPLETE application packet. A complete application packet includes:

1. A complete Coast Community College District **Online Employment Application.**
2. A **current resume** of professional experience, educational background, and teaching experience (upload as a separate attachment - PDF recommended).
3. A **cover letter** highlighting your qualifications for the desired position, INCLUDING desirable qualifications for the subject(s) to be taught (upload as a separate attachment - PDF recommended).

4. **All unofficial copies** of undergraduate and graduate transcripts (upload as a separate attachment - PDF recommended).
5. **Answers to all Supplemental Questions** (please provide clear and thorough responses as they will be carefully evaluated to determine the most qualified candidate(s) to be invited for an interview; please do not paste your resume or put "see resume" or leave blank).
6. **Application for Equivalency**, if applicable. Candidates who are applying with minimum qualifications on the basis of equivalency must submit a completed Application for Equivalency Form (which can be downloaded at www.cccd.edu/employment) with supporting documents, in addition to all other required materials (upload as a separate attachment - PDF recommended).
7. Please do not attach additional application materials--they will not be reviewed or returned.

Submission of all required application information and materials is the responsibility of the applicant.

APPLICATION PROCEDURES:
Applications must be received no later than the posted closing date. There are **NO EXCEPTIONS**. Electronic applications may be completed by visiting www.cccd.edu/employment. Once you have completed an electronic application, you may apply to open positions within the Coast Community College District by submitting the application and all other required materials. Required materials differ for each open position and must be complete when submitted for a specific posting. Instructions for completing applications and applying to posted positions are available online or by calling Applicant Processing at (714) 438-4714.

All application materials become the property of the Coast Community College District and will NOT be copied or returned. Information for TDD users is available by calling (714) 438-4755.

To ensure consistency and fairness to all applicants, please do not submit materials in addition to those requested. Additional materials will not be considered or returned. Any documents that you are unable to attach can be faxed to (714) 782-6065. Faxes must clearly indicate your name and the job to which you are applying.

Be sure to complete all questions and sections of the application even if your cover letter or CV/Resume already addresses those questions. For questions which may not apply, indicate "n/a" (not applicable). If you do not know an answer, please indicate so, but do not leave any space blank. All applications will be screened under a process of utmost confidentiality by a committee of representatives from the college community.

Disability Accommodations: Individuals who need reasonable accommodations in accordance with ADA should notify the Human Resources Office for assistance or call 714.438.4714 or 714.438.4716.

SELECTION PROCEDURES:

1. All online applications and required materials received by the deadline date will be screened to determine which applicant(s) meet(s) the minimum qualifications as stated in the job announcement. Please note: Possession of the minimum qualifications does not ensure an interview.
2. Applicants who meet the required qualifications and who are also deemed to possess the highest degree of desirable qualifications will be invited to discuss their qualifications in an interview with the College/District. Therefore, it is highly recommended that applicants submit clear, detailed responses to all supplemental questions in order to demonstrate his/her qualifications as related to the position.
3. If any travel is required for an applicant to participate in-person during the interview process, this will be done so at the candidate's own expense.
4. During the campus visit, each candidate will be interviewed and may be asked to conduct a short teaching demonstration/presentation on a previously announced topic as well as participate in a writing exercise and/or hands-on practical.
5. The search committee will rate the candidate's responses to the interview questions, the demonstration/presentation, and the applicable writing exercises and/or hands-on practical.
6. Based on this rating, a number of candidates will be recommended to move forward and will be invited to the campus for a second level interview.
7. The campus President will make the final recommendation for employment to the Board of Trustees.
8. The successful candidate will be offered the position and placed on the current salary schedule based on their experience.
9. The start date will be determined by the Dean of the Division/Department depending on the needs of the campus and the conditions of employment as posted in the job announcement/recruitment.

EMPLOYMENT INFORMATION:

- To be considered in the initial committee review, all materials requested in this vacancy notice must be received no later than the filing deadline. Submission of all application materials is the responsibility of the applicant.
- The District does not contact nor employ outside agencies or headhunters to assist us in the recruitment process for our vacant positions.
- Applicants wishing to apply for more than one position must submit separate application materials for each desired position.
- During the interview process, consideration will be given to factors in addition to education and experience, including but not limited to: professional development, ability to work with others, and commitment to meet student needs.
- Applicants who are eliminated from consideration will be notified by email. All applicants are requested to provide an email address in their online application.
- Candidates should not expect official notification of the status of their candidacy until the Board of Trustees has acted upon the College's recommendation for employment.
- The District reserves the right to contact the current or most recent employer and to investigate past employment records of applicants selected for interviews.
- The District reserves the right to extend the deadline, re-advertise the position or delay filling this position based on the needs of the District and the student population we serve.
- The College does not return materials submitted in the application for a position. (Copies of original supporting documents are acceptable).
- Official transcripts will be requested by Human Resources during the 'new hire' process.

The Coast Community College District is a multi-college district that includes Coastline Community College, Golden West College, and Orange Coast College. The three colleges offer programs in transfer, general education, occupational/technical education, community services and student support services. Coastline, Golden West and Orange Coast Colleges enroll more than 60,000 students each year in more than 300 degree and certificate programs.
Since its founding in 1947, the Coast Community College District has enjoyed a reputation as one of the leading community college districts in the United States. Governed by a locally elected Board of Trustees, the Coast Community College District plays an important role in the community by responding to needs of a changing and increasingly diverse population.

Coast Community College District is an Equal Opportunity Employer
The Coast Community College District is committed to employing qualified administrators/managers, faculty, and staff members who are dedicated to student learning and success. The Board recognizes that diversity in the academic environment fosters awareness, promotes mutual understanding and respect, and provides suitable role models for all students. The Board is committed to hiring and staff development processes that support the goals of equal opportunity and diversity, and provide equal consideration for all qualified candidates. The District does not discriminate unlawfully in providing educational or employment opportunities to any person on the basis of race, color, sex, gender identity, gender expression, religion, age, national origin, ancestry, sexual orientation, marital status, medical condition, physical or mental disability, military or veteran status, or genetic information.

Coast Colleges is an Equal Opportunity Employer

APPLICATIONS MAY BE FILED ONLINE AT:
http://www.cccd.edu

Position #5-G-18
INSTRUCTOR, PHYSICS
BW

1370 Adams Avenue
Costa Mesa, CA 92626
714-438-4714

jobs@cccd.edu

Instructor, Physics Supplemental Questionnaire

* 1. I understand that a COMPLETE application packet is required for consideration, which includes the following: 1. A complete Coast Community College District Online Employment Application 2. A current resume or curriculum vitae (as a separate attachment - PDF recommended) 3. A cover letter outlining your education and experience relevant to this position, INCLUDING desirable qualifications for the subject(s) to be taught (as a separate attachment - PDF recommended) 4. All unofficial copies of undergraduate and graduate transcripts (as a separate attachment - PDF recommended) 5. Answers to all supplemental questions (clear, thorough responses required for evaluation purposes) 6. Application for Equivalency, if applicable (as a separate attachment - PDF recommended)

Yes No

* 2. Have you taught eight (8) or more semesters for the Coast Community College District? (Per the Agreement between CCA - CTA/NEA and the Coast Community College District)

Yes No

* 3. Have you taught a minimum of four (4) semesters for the Coast Community College District in the last three (3) years in the discipline for which you are applying? (Per the Agreement between CCA - CTA/NEA and the Coast Community College District)

Yes No

* 4. If you answered yes to question #2 and/or question #3, what was your start date and teaching locations? (Coastline College, Golden West College, and Orange Coast College) Respond with N/A if this does not apply to you.

* 5. Are you applying for equivalency? (A completed Application for Equivalency Form with supporting documents MUST BE ATTACHED if you do not possess the minimum qualifications for this discipline as listed in the job posting. The Equivalency Application Form can be downloaded at www.cccd.edu/employment.)

No, I am not applying for equivalency because I already possess the minimum qualifications for this discipline area as listed in the job posting.

No, I am not applying for equivalency because I was already granted equivalency in this discipline area by Coastline College, Golden West College and/or Orange Coast College.

Yes, I have ATTACHED my completed Application for Equivalency Form (downloadable at www.cccd.edu/employment) with supporting documents included, for review.

* 6. If you were previously granted equivalency in this discipline area by a CCCD college, please specify: (1) the discipline(s) (2) from which college(s) equivalency was granted, and (3) when equivalency was granted. (Please type "N/A" if this question does not apply to you.)

* 7. Are you planning on attending the 2017 CCC Registry Job Fair at the Hilton LAX in Los Angeles on January 28, 2017? (For informational purposes only. This question does not have any effect on your application.)

Yes No

* 8. Please share your experience and cite examples of your ability to vary instructional delivery, design curriculum and learning activities, and use a range of instructional strategies for working with students of varying learning levels and learning styles in both lecture and lab settings.

* 9. Describe how your knowledge of science education research has informed your teaching.

* 10. Provide specific examples of how assessing student learning outcomes have helped improve your teaching skills and classroom techniques.

* 11. Describe your experience in teaching physics and/or astronomy laboratories. Particularly address your experience in designing experiments for students and selecting, setting up, and maintaining physics lab equipment, instrumentation and software.

* 12. What role do you feel that laboratories play in physics instruction?

* Required Question

Coast Colleges
Inspiration. Innovation. Graduation.

Orange Coast College
Golden West College
Coastline Community College

PROFESSIONAL OPPORTUNITY

Position No: 11-O-16
Opening Date: December 12, 2014
Closing Date: Feb. 6, 2015, 11:59pm

Position Description:	**Instructor, Geology**
Location:	**Orange Coast College**
Start Date:	**Fall Semester - August 2015**
Salary:	**$47,158.00 - $112,433.00 Annually**

INSTRUCTOR PROFILE: Instructor responsibilities include curriculum and program development, participation in department, division, college committees, and participatory governance activities assuming leadership roles both within the department and in the institution as a whole; collaboration across disciplines and the leveraging of student support resources; and participation in ongoing professional development. The ideal candidate for this position embraces the overall mission of the California Community College system, with a clear, focused commitment to supporting teaching and academic excellence, and student learning and success.

PERFORMANCE RESPONSIBILITIES: Fulfill the professional responsibilities of a full time faculty member including but not limited to the following:

1. Teach scheduled classes according to the approved course outline of record. Assignments may include day, evening, weekend and online sections, for example: full range of Geology and Earth Science sources, including Geology, Earth History, Environmental and California Geology.
2. Develop, update, and revise curriculum.
3. Develop, revise, and report program and course learning outcomes and the assessment of learning.
4. Maintain current knowledge of the profession discipline and of educational methodologies.
5. Develop and provide a syllabus for each course taught to include the courses' student learning outcomes (CSLOs) consistent with the officially approved course outline, and make them available to all students in each class during the first week of each term.
6. Keep accurate student records including attendance and progress and the reporting of grades.
7. Post and maintain scheduled office hours.
8. Maintain current knowledge in the subject matter areas.
9. Faculty will be expected to attend collegial campus wide events related to departmental and area meetings, District/College wide activities and committees and college and discipline-specific professional activities for example: "Science Night."

MINIMUM QUALIFICATIONS

1. Candidates must meet one of the following qualifications under (a) through (d):
    a. Valid California Community College instructor credential, appropriate to the subject, per Education Code 87355;
    b. Master's degree from an accredited institution in geology, geophysics, earth sciences, meteorology, oceanography, or paleontology.
    c. Bachelor's degree in geology AND a Master's degree in geography, physics, or geochemistry from an accredited institution.

   d. Or, possess a combination of education and experience that is at least the equivalent to the above. Candidates making an application on the basis of equivalency must submit an Application for Equivalency in addition to all other required materials.
2. Evidence of sensitivity to, understanding of, and the ability to manage the classroom environment AND effectively provide instruction to community college students of diverse academic, socioeconomic, cultural, disability, and ethnic backgrounds.

DESIRABLE QUALIFICATIONS

1. Evidence of teaching experience in at least two of the following areas: Physical Geology, Historical Geology, Environmental Geology, Hydrogeology.
2. A minimum three years of recent experience teaching at the post-secondary level.
3. Desire and demonstrated ability to participate actively in department, division, and college committees and in the shared governance of Coast Community College District.
4. Evidence of ability to lead geology related field trips for majors and non-majors.
5. Evidence of involvement in geology and physical science education such as: Participation in committees, conferences, and workshops; memberships in professional organizations; design, review, and evaluation of curriculum; professional developmental activities; applications of physical science outside the classroom.
6. Evidence of an ability to address the instructional needs of a diverse and frequently underprepared student population.
7. Evidence that demonstrates a strong commitment to quality teaching, student success and academic excellence.
8. Ability to work with computers, and use the Internet and interactive technologies to engage students in on-campus and online courses; where academically appropriate.
9. Desire and evidence of an ability to take on leadership roles both within the department and in the institution as a whole.
10. Evidence of an ability to communicate effectively both orally and in writing.

CONDITIONS OF EMPLOYMENT

- Contract (tenure track), full-time, two-semester per year position (175 days)
- Start Date: Fall Semester – August 2015
- Assignment may include day, evening, weekend and summer hours.

Salary: Full-time, two-semester position with a maximum starting range of $47,158.00 - $80,401.00 is offered, based on the 2014-2015 Salary Schedule of $47,158.00 to $112,433.00. In addition, an annual stipend of $2,849.00 is offered for possession of an earned doctorate from an accredited institution.

Employee Benefits: The District provides a comprehensive benefit program effective the first calendar day of the month following the first day of regular employment. Dental and vision care plans for employees and dependents, and life insurance and income protection plans for employees are fully paid by the District. A variety of medical plans covering employees and their dependents are available, with the District paying the major portion of the cost.

Pay Philosophy: Starting salaries for academic positions are based on a combination of education and experience. Initial placement is within the starting salary range. Further advancements are based on longevity and professional development. An additional annual stipend is offered for possession of an earned doctorate from an accredited institution.

Physical Demands:

- The physical demands are representative of those that must be met by an employee to successfully perform the essential functions of this job.

- The work environment characteristics are representative of those an employee encounters while performing the essential functions of this job.
- Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.
- A detailed list of physical demands and work environment is on file and will be provided upon request.

ADDITIONAL INFORMATION

Application Procedures:
Applications must be received no later than the posted closing date. There are **NO EXCEPTIONS**.

Application Requirements: Only complete applications with all the following items will be considered. All attachments must accompany the District application form and should not be sent separately.

1. A complete Certificated Application form.
2. Application for equivalency, if applicable.
3. A current resume of professional experience, educational background, teaching experience (list specific courses), publications, and other pertinent information (not to exceed a total of 10 pages).
4. Attached as a separate document, legible copies of transcripts of all college course work must be included with your application. (Official transcripts or certified copies are not required at this time.)

NOTE: Candidates selected for an interview will be required to give a teaching demonstration. The requirements for the teaching demonstration will be defined by the interview committee and will be given to the candidates at the time of interview scheduling.

Candidates selected for an interview will also be required to provide "unofficial" transcripts of ALL undergraduate and graduate course work.

Candidates will also be responsible for all travel expenses if selected for an interview, the Coast Community College District does not reimburse for candidate travel expenses.

To ensure consistency and fairness to all applicants, please do not submit materials in addition to those requested. Additional materials will not be considered or returned.

Be sure to complete all questions and sections of the application. For questions which may not apply, indicate "n/a" (not applicable). If you do not know an answer, please indicate so, but do not leave any space blank.
All applications will be screened under a process of utmost confidentiality by a committee of representatives from the college community. Please note: Possession of the minimum qualifications does not ensure an interview.

Electronic applications may be completed by visiting www.cccd.edu/employment. Once you have completed an electronic application, you may apply to open positions within the Coast Community College District by submitting the application and all other required materials. Required materials differ for each open position and must be complete when submitted for a specific posting. Instructions for completing applications and applying to posted positions are available online or by calling Applicant Processing at (714) 438-4715.
All application materials become the property of the Coast Community College District and will NOT be copied or returned.

Information for TDD users is available by calling (714) 438-4755.

Disability Accommodations: If you require accommodations in the Application or Examination Process, please notify Human Resources by calling (714) 438-4714 OR (714) 438-4713.

INSTRUCTOR, GEOLOGY *Supplemental Questionnaire*

1. Are you applying for equivalency? (An application for equivalency is required if you do not possess the minimum qualifications for this discipline.)
   - ❑ No. I am not applying for equivalency. I already possess the minimum qualifications for this discipline area.
   - ❑ Yes. I have attached the application for equivalency.

2. Have you taught eight (8) or more semesters for the Coast Community College District? (Per the Agreement between CCA - CTA/NEA and the Coast Community College District)
   - ❑ Yes ❑ No

3. Have you taught a minimum of four (4) semesters for the Coast Community College District in the last three (3) years in the discipline for which you are applying? (Per the Agreement between CCA - CTA/NEA and the Coast Community College District)
   - ❑ Yes ❑ No

4. If you answered yes to any of the above questions, what was your start date and teaching locations? (Coastline College, Golden West College, and Orange Coast College) Respond with N/A if this does not apply to you.

5. Please provide a brief response to the Desirable Qualification #1. 1. Evidence of teaching experience in at least two of the following areas: Physical Geology, Historical Geology, Environmental Geology, Hydrogeology.

6. Please provide a brief response to the Desirable Qualification #2. 2. A minimum three years of recent experience teaching at the post-secondary level.

7. Please provide a brief response to the Desirable Qualification #3. 3. Desire and demonstrated ability to participate actively in department, division, and college committees and in the shared governance of Coast Community College District.

8. Please provide a brief response to the Desirable Qualification #4. 4. Evidence of ability to lead geology related field trips for majors and non-majors.

9. Please provide a brief response to the Desirable Qualification #5. 5. Evidence of involvement in geology and physical science education such as: Participation in committees, conferences, and workshops; memberships in

professional organizations; design, review, and evaluation of curriculum; professional developmental activities; applications of physical science outside the classroom.

10. Please provide a brief response to the Desirable Qualification #6. 6. Evidence of an ability to address the instructional needs of a diverse and frequently underprepared student population.

11. Please provide a brief response to the Desirable Qualification #7. 7. Evidence that demonstrates a strong commitment to quality teaching, student success and academic excellence.

12. Please provide a brief response to the Desirable Qualification #8. 8. Ability to work with computers, and use the Internet and interactive technologies to engage students in on-campus and online courses; where academically appropriate.

13. Please provide a brief response to the Desirable Qualification #9. 9. Desire and evidence of an ability to take on leadership roles both within the department and in the institution as a whole.

14. Please provide a brief response to the Desirable Qualification #10. 10. Evidence of an ability to communicate effectively both orally and in writing.

COAST COMMUNITY COLLEGE DISTRICT
invites applications for the position of:

Instructor, Chemistry
13-O-18

SALARY: $4,112.83 - $9,181.42 Monthly
$49,354.00 - $110,177.00 Annually

OPENING DATE: 12/14/16

CLOSING DATE: 01/31/17 11:59 PM

DEFINITION:

THE POSITION
Orange Coast College is currently seeking a full-time tenure track Chemistry Instructor(s) commencing with the 2017 fall semester. The primary teaching assignment involves any chemistry course taught at the community college level emphasizing in organic and General Organic and Biological (GOB) courses with associated laboratories. This assignment also includes curriculum and program development, participation in department, division, college committees, and participatory governance activities assuming leadership roles both within the department and in the institution as a whole; collaboration across disciplines and the leveraging of student support resources; and participation in ongoing professional development.
The assignment may be day, evening, weekend, online or off campus and is subject to change as needed. The ideal candidate for this position embraces the overall mission of Orange Coast College and the Coast Community College District, with a clear, focused commitment to supporting teaching and academic excellence and student learning and success through the work of Chemistry

Examples of Duties: Duties may include, but are not limited to, the following:
1. Provide instruction in Chemistry in accordance with established course outlines.
2. Provide leadership in the development and revision of Chemistry curriculum.
3. Participate in curriculum development, implementation, and evaluation; participate in and develop programs to measure student performance.
4. Maintain current knowledge in the subject matter areas.
5. Maintain appropriate standards of professional conduct and ethics.
6. Fulfill the professional responsibilities of a full-time faculty member including, but not limited to the following: teach all scheduled classes unless excused under provisions of Board Policy; follow the department course outlines; keep accurate records of student enrollment, attendance, and progress; submit student grades according to established deadlines; post and maintain scheduled office hours; participate in departmental meetings and college and/or district-wide activities and committees as assigned.
7. Assignment may include day, evening, weekend, and online sections.

QUALIFICATIONS:

Minimum Qualifications:

- Master's in Chemistry from an accredited institution, **OR**
- Bachelor's degree in Chemistry or Biochemistry from an accredited institution **AND**
- Master's in Biochemistry, Chemical Engineering, Chemical Physics, Physics, Molecular Biology, or Geochemistry from an accredited institution
- **OR** meet the equivalent qualifications established by the District, **AND**
- Demonstrated cultural competency, sensitivity to and understanding of the diverse academic, socioeconomic, cultural, disability, gender identity, sexual orientation and ethnic backgrounds of community college students.
- Ability to contribute to campus and district-wide professional responsibilities and activities.
- Ability to complement existing staff, student and community demographics in terms of professional and personal skills.

Additional Required Qualifications:
1. Demonstrated abilities in teaching lectures and associated laboratories in college level chemistry preferably at several levels and in the large lecture format.

2. Recent experience with a variety of modern chemical instrumentation
3. Desire and demonstrated ability to participate actively in department, division, and college committees and in the shared governance of Coast Community College District.
4. Evidence of an ability to address the instructional needs of a diverse and frequently underprepared student population.
5. Evidence that demonstrates a strong commitment to quality teaching, student success and academic excellence.
6. Ability to work with computers, and use the Internet and interactive technologies to engage students in on-campus and online courses; where academically appropriate.
7. Desire and evidence of an ability to take on leadership roles both within the department and in the institution as a whole.
8. Evidence of an ability to communicate effectively both orally and in writing.

CONDITIONS OF EMPLOYMENT:

For a full-time, two-semester position a maximum starting range of $49,354.00 to $110,177 is offered, based on the 2016-2017 salary schedule of $49,354.00 to $110,177. In addition, an annual stipend of $2,781 is offered for possession of an earned doctorate from an accredited institution. The District provides medical, dental, and vision insurance for the employee and eligible dependents and life insurance for the employee.

- Regular attendance is considered an essential job function; the inability to meet attendance requirements may preclude the employee from retaining employment.
- The person holding this position is considered a mandated reporter under the California Child Abuse and Neglect Reporting Act and is required to comply with the requirements set forth in Coast Community College District policies, procedures, and Title IX. (Reference: BP/AP 5910)
- The Coast Community College District celebrates all forms of diversity and is deeply committed to fostering an inclusive environment within which students, staff, administrators, and faculty thrive. Individual's interested in advancing the District's strategic diversity goals are strongly encouraged to apply. Reasonable accommodations will be provided for qualified applicants with disabilities who self-disclose.

*The deadline to apply is **11:59 p.m., January 31, 2017.** Application materials must be electronically submitted on-line at* http://www.cccd.edu/employment. *Incomplete applications and application materials submitted by mail will not be considered.*

ADDITIONAL INFORMATION:

APPLICATION REQUIREMENTS
Reference AP 7120C – A complete application may include, but not be limited to, the following:

- District Application Form
- Responses to Supplemental Questions (as required) (please provide clear, thorough responses as they will be carefully evaluated to determine the most qualified candidate(s) to be invited for an interview; please do not paste your resume, or put "see resume" or "N/A").
- Cover letter addressing the applicant's qualifications, including desirable qualifications for the subject(s) to be taught (not to exceed two pages)
- Resume (not to exceed two pages)
- All unofficial transcripts (as separate attachment)
- *Equivalency Request Form* and supporting documentation (if applicable, as separate attachment)
- Documents not requested in the job announcement will not be considered

Submit application on-line at
http://www.cccd.edu/employment.
Coast Community College District – Human Resources
1370 Adams Avenue, Costa Mesa, CA 92626

Individuals who need reasonable accommodations in accordance with ADA should notify the Human Resources Office for assistance or call 714.438.4714.

SELECTION PROCEDURE

1. All online applications received by the deadline date will be screened to determine which

applicants meet the minimum qualifications as stated in the job announcement. Please note: Possession of the minimum qualifications does not ensure an interview.
2. Applicants who meet the minimum qualifications and who are also deemed to possess the highest degree of desirable qualifications will be invited discuss their qualifications in an interview to the college. If any travel is required for an applicant to participate in person during the interview process, this will be done so at the candidate's own expense. During the campus visit, each candidate will be interviewed and may be asked to conduct a short teaching demonstration/presentation on a previously announced topic as well as participate in a writing exercise and/or hands-on practical.
3. The search committee will rate the candidate's responses to the interview questions, the demonstration/presentation, and the applicable writing exercises and/or hands-on practical.
4. Based on this rating, a number of candidates will be recommended to move forward and will be invited to the campus for a second level interview.
5. The campus President will make the final recommendation for employment to the Board of Trustees.
6. The successful candidate will be offered the position and placed on the current salary schedule based on their education and experience.
7. The start date will be determined by the hiring manager depending on the needs of the campus and the conditions of employment as posted in the job announcement/recruitment.

EMPLOYMENT INFORMATION

- To be considered in the initial committee review, all materials requested in this vacancy notice must be received no later than the filing deadline. Submission of all application materials is the responsibility of the applicant.
- The District does not contact nor employ outside agencies or headhunters to assist us in the recruitment process for our vacant positions.
- Applicants wishing to apply for more than one position must submit separate application materials for each desired position.
- During the interview process, consideration will be given to factors in addition to education and experience, including but not limited to: professional development, ability to work with others, and commitment to meet student needs.
- Applicants who are eliminated from consideration will be notified by email. All applicants are requested to provide an email address in their online application.
- Candidates should not expect official notification of the status of their candidacy until the Board of Trustees has acted upon the College's recommendation for employment.
- The District reserves the right to contact the current or most recent employer and to investigate past employment records of applicants selected for interviews.
- The District reserves the right to extend the deadline, re-advertise the position or delay filling this position based on the needs of the District and the student population we serve.
- The College does not return materials submitted in the application for a position. (Copies of original supporting documents are acceptable).
- Official transcripts will be requested by Human Resources during the 'new hire' process.

The Coast Community College District is a multi-college district that includes Coastline Community College, Golden West College, and Orange Coast College. The three colleges offer programs in transfer, general education, occupational/technical education, community services and student support services. Coastline, Golden West and Orange Coast Colleges enroll more than 60,000 students each year in more than 300 degree and certificate programs.
Since its founding in 1947, the Coast Community College District has enjoyed a reputation as one of the leading community college districts in the United States. Governed by a locally elected Board of Trustees, the Coast Community College District plays an important role in the community by responding to needs of a changing and increasingly diverse population.

THE COAST COMMUNITY COLLEGE DISTRICT IS AN EQUAL OPPORTUNITY EMPLOYER:
The Coast Community College District is committed to employing qualified administrators/managers, faculty, and staff members who are dedicated to student learning and success. The Board recognizes that diversity in the academic environment fosters awareness, promotes mutual understanding and respect, and provides suitable role models for all students. The Board is committed to hiring and staff development processes that support the goals of equal opportunity and diversity, and provide equal consideration for all qualified candidates. The District does not discriminate unlawfully in providing educational or employment opportunities to any person on the basis of race, color, sex, gender identity, gender expression, religion, age, national origin, ancestry, sexual orientation, marital status, medical condition, physical or mental disability, military or veteran status, or genetic information.

Coast Colleges is an Equal Opportunity Employer

APPLICATIONS MAY BE FILED ONLINE AT:
http://www.cccd.edu

Position #13-O-18
INSTRUCTOR, CHEMISTRY
HR

1370 Adams Avenue
Costa Mesa, CA 92626
714-438-4714

jobs@cccd.edu

Instructor, Chemistry Supplemental Questionnaire

* 1. Are you applying for equivalency? (An application for equivalency is required if you do not possess the minimum qualifications for this discipline. Equivalency application form located at www.cccd.edu/employment.)

No, I am not applying for equivalency because I already possess the minimum qualifications for this discipline area.

No, I am not applying for equivalency because I was already granted equivalency in this discipline area by Coastline College, Golden West College and/or Orange Coast College.

Yes, I have attached my application for equivalency for review.

* 2. Have you taught eight (8) or more semesters for the Coast Community College District? (Per the Agreement between CCA - CTA/NEA and the Coast Community College District)

Yes No

* 3. Have you taught a minimum of four (4) semesters for the Coast Community College District in the last three (3) years in the discipline for which you are applying? (Per the Agreement between CCA - CTA/NEA and the Coast Community College District)

Yes No

* 4. If you answered yes to any of the above questions, what was your start date and teaching locations? (Coastline College, Golden West College, and Orange Coast College) Respond with N/A if this does not apply to you.

* 5. Please provide a description of your experience teaching Chemistry at the post-secondary level (especially at a community college, teaching lectures including large lecture format and associate laboratories).

* 6. Describe your desire and demonstrated ability to participate actively in department, division, and college committees and in the shared governance of Coast Community College District.

* 7. Describe your desire and evidence of ability to act as an effective coworker with faculty peers (full and part-time), classified staff and administration.

* 8. Please describe how you see the needs of 2-yr college students to be different than 4-yr college students.

* 9. What unique or unusual skills, techniques or projects have you developed and implemented in your prior chemistry instruction?

* Required Question

Coast Community College District
1370 Adams Avenue, Costa Mesa, CA 92626

Orange Coast College
Golden West College
Coastline Community College

PROFESSIONAL OPPORTUNITY

Position No: **8-O-13**
Opening Date: **January 9, 2012**
Closing Date: **February 22, 2012**
5:00 p.m.

Position Description: **INSTRUCTOR, BIOLOGICAL SCIENCES**
This is a contract, tenure track, full time, two semesters per year, 175 day position.

Location: **Orange Coast College**

Start Date: **Fall Semester, August 2012**

Performance Responsibilities: Duties may include, but are not limited to, the following:

1. Instruct lecture and lab courses in the non-majors Biological Sciences curriculum. Curriculum responsibilities may include any Biological Sciences course taught at the community college level.
2. Participate in curriculum development, design, implementation and evaluation.
3. Fulfill the professional responsibilities of a full-time faculty member, including, but not limited to the following: teach all scheduled classes unless excused under provisions of Board Policy, participate in staff and department meetings and college and/or district wide activities and committees as assigned; follow the biology department course outlines; keep accurate records of student enrollment, attendance and progress; post and maintain scheduled office hours.
4. Assignment may include day, evening or weekend classes.

Minimum Qualifications:

1. Must meet one of the following qualifications under (a) through (d):
   a. Possess the California Community College Teaching Credential for this subject area.
   b. Possess a Master's degree from an accredited institution in any biological science.
   c. Possess a Bachelor's degree in any biological science **AND** a Master's degree in Biochemistry, Biophysics, or Marine Science from an accredited institution.
   d. Or, possess a combination of education and experience that is at least the equivalent to the above. Candidates making an application on the basis of equivalency must submit an Application for Equivalency in addition to all other required materials.
2. Sensitivity to and understanding of the diverse academic, socioeconomic, cultural, disability, and ethnic backgrounds of community college students.

Desirable Qualifications:

1. Successful college or high school experience teaching Biological Sciences or teaching assistantship in Biological Sciences at the college level.
2. Recent experience and demonstrated ability in teaching college lecture and lab non-majors biology courses.
3. Recent experience and demonstrated ability in teaching college lecture and lab courses in at least one additional Biology area currently offered at OCC (i.e., anatomy and physiology, cell and molecular biology, ecology and evolution, microbiology, botany, zoology, or organismal biology).

Desirable Qualifications: (Continued)

4. Recent course work in related subject areas.
5. Demonstrated experience in biological data collection, analysis, and presentation via published peer-reviewed articles or participation at scientific conferences in fields such as anatomy and physiology, cell and molecular biology, ecology and evolution, microbiology, botany, zoology, or organismal biology.
6. Experience in computer based applications and other modern technologies designed to support Biology curricula.
7. Demonstrated ability to work collaboratively with other science faculty and laboratory support staff.
8. The ability to communicate clearly and accurately in the English language both verbally and in writing.
9. Successful teaching experience working with diverse student populations and variable class sizes (30 to 200 or more students).
10. Experience with lab manual authoring and coordination of multiple lab sections of a course.

Physical Demands:

– The physical demands are representative of those that must be met by an employee to successfully perform the essential functions of this job.
– The work environment characteristics are representative of those an employee encounters while performing the essential functions of this job.
– Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.
– A detailed list of physical demands and work environment is on file and will be provided upon request.

Application Requirements:

To be considered for employment you must submit a complete application packet. A complete application packet includes:

- A certificated application.
- Equivalency Application, if applicable.
- A cover letter, (not to exceed 3 pages) addressing how you meet both the minimum and desirable qualifications (#1-10).
- A current resume, (not to exceed 10 pages) consisting of professional experience, educational background, teaching experience (list specific courses) publications, letters of recommendation, and other pertinent information.
- A short statement of your teaching philosophy (separate from cover letter).
- At least three (3) of the five references listed on your application should include recent supervisors, instructors, or others familiar with your abilities related to this position.

To ensure consistency and fairness to all applicants, please do not submit any materials in addition to those requested.

NOTE: Candidates selected for an interview will be required to give a teaching demonstration. The requirements for the teaching demonstration will be defined by the interview committee and will be given to the candidates at the time of interview scheduling.

Candidates selected for an interview will be required to provide "unofficial" transcripts of ALL undergraduate and graduate course work. Official transcripts or certified copies are not required at this time. **PLEASE DO NOT SUBMIT TRANSCRIPTS WITH APPLICATION.**

INSTRUCTOR, BIOLOGICAL SCIENCES
#8-O-13

Be sure to complete all questions and sections of the application. For questions which may not apply, indicate "n/a" (not applicable). If you do not know an answer, please indicate so, but do not leave any space blank.

All applications will be screened under a process of utmost confidentiality by a committee of representatives from the college community (reference Board Policy 050-1-1). Please note: Possession of the minimum qualifications does not ensure an interview.

Salary: For a full-time, two-semester position a maximum starting range of $46,037 to $78,490 is offered, based on the 2011-2012 salary schedule of $46,037 to $109,761. In addition, an annual stipend of $2,781 is offered for possession of an earned doctorate from an accredited institution.

Employee Benefits: The District provides a comprehensive benefit program effective the first calendar day of the month following the first day of regular employment. Dental and vision care plans for employees and dependents, and life insurance and income protection plans for employees are fully paid by the District. A variety of medical plans covering employees and their dependents are available, with the District paying the major portion of the cost.

APPLICATION PROCEDURES: Applications, whether paper or electronic must be received no later than the posted closing date. There are **NO EXCEPTIONS**.

Electronic applications may be completed by visiting www.cccdjobs.com. Once you have completed an electronic application, you may apply to open positions within the Coast Community College District by submitting the application and all other required materials. Required materials differ for each open position and must be complete when submitted for a specific posting. Instructions for completing applications and applying to posted positions are available online or by calling Applicant Processing at (714) 438-4715.

You may request a paper application, by calling (714) 438-4715. Paper applications must be received and time stamped by 5:00pm at the Coast Community College District offices located at 1370 Adams Ave., Costa Mesa, CA 92626. There are **NO EXCEPTIONS**.

All application materials become the property of the Coast Community College District and will **NOT** be copied or returned. Information for TDD users is available by calling (714) 438-4755.