SANTA MONICA COLLEGE
ACADEMIC
SENATE
1900 Pico Boulevard
Santa Monica, CA 90405
310.434.4611

CURRICULUM COMMITTEE ❙ AGENDA

Wednesday, June 1, 2016 ❙ 3:00 p.m.
Loft Conference Room – Drescher Hall 300-E

Members:

Guido Davis Del Piccolo, *Chair*	Maral Hyeler	Walt Louie	James Pacchioli
Jennifer Merlic, *Vice Chair*	William Konya	Kymia Mahjouri (AS)	Elaine Roque
Brenda Antrim (non-voting)	Helen LeDonne	Steve Maldonado (AS)	Gita Runkle
Ida Danzey	Karen Legg	Emin Menachekanian	David Shirinyan
Christina Gabler	Emily Lodmer	Estela Narrie	Mark Tomasic
Sandra Hutchinson	Georgia Lorenz	Darryl-Keith Ogata	Odemaris Valdivia

Interested Parties:

Maria Bonin	Vicki Drake	Pete Morris	Linda Sinclair
Patricia Burson	Jonathan Eady (AS)	Steven Myrow	Esau Tovar
Dione Carter	Kiersten Elliott	Estela Ruezga	Julie Yarrish

Ex-Officio Members:

Fran Chandler	Jesse Randel

A G E N D A

(Items for action are listed alphabetically; items for information are listed numerically)

I. Call to order
II. Public Comments*
III. Approval of Minutes 3
IV. Chair's report:

V. Information Items:

(Course Updates)

1. MUSIC 3 Musicianship
2. MUSIC 4 Musicianship
3. MUSIC 7 Chromatic Harmony
4. MUSIC 8 Modulation And Analysis
5. MUSIC 12 Introduction to Music Technology
6. MUSIC 33 Jazz in American Culture
7. MUSIC 37 Music in American Culture
8. MUSIC 39 History of Opera
9. MUSIC 40 Opera Workshop
10. MUSIC 42 Advanced Opera Production
11. MUSIC 52 Advanced Production - Musical Theatre
12. MUSIC 55 Concert Chorale
13. MUSIC 57 Advanced Vocal Performance Techniques
14. MUSIC 59 Chamber Choir
15. MUSIC 65A Keyboard Improvisation I
16. MUSIC 65B Keyboard Improvisation II
17. MUSIC 66 Fundamentals Of Music And Elementary Piano
18. MUSIC 69D Interpretation of 20th Century Piano Music
19. MUSIC 70A String Instrument Techniques
20. MUSIC 70B Intermediate Strings Techniques
21. MUSIC 70C Intermediate Strings Orchestra
22. MUSIC 71 Woodwind Instrument Techniques
23. MUSIC 72 Brass Instrument Techniques
24. MUSIC 74 Orchestra
25. MUSIC 75 Instrumental Chamber Music Repertoire
26. MUSIC 76 Intermediate Brass Woodwinds And Percussion
27. MUSIC 77 Wind Ensemble
28. MUSIC 77S Wind Ensemble
29. MUSIC 78 Jazz Ensemble
30. MUSIC 78S Jazz Ensemble
31. MUSIC 84A Popular Guitar First Level
32. MUSIC 84B Popular Guitar Second Level
33. MUSIC 84C Popular Guitar Third Level
34. MUSIC 87A Classical And Flamenco Guitar First Level
35. MUSIC 87B Classical And Flamenco Guitar Second Level
36. MUSIC 92 Applied Music Instruction
37. MUSIC 94 Concert Music Class
38. PRO CR 15 Sports Management
39. VAR PE 20V Advanced Football For Men
40. VAR PE 60 Conditioning For Intercollegiate Sport

**Five minutes is allotted to any member of the public who wishes to address the Curriculum Committee on a specific agenda item, for general public comments, or non-agenda items.*

(Course Deactivation)

41. PHOTO 4, 9, 10, 11, 24, 25, 44, 51, 87
42. KIN PE 37A, 37B
43. INTARC 46

VI. Action Items:

(Consent Agenda)

a. Change in Units for the following courses (increase from 2 to 3 units to better match the hours):
VAR PE 9V, VAR PE 9W, VAR PE 14V, VAR PE 14W, VAR PE 21V, VAR PE 43V, VAR PE 43W, VAR PE 45W, VAR PE 48V, VAR PE 48W, VAR PE 50V, VAR PE 50W, VAR PE 54W, VAR PE 56V, VAR PE 56W, VAR PE 57V, and VAR PE 57W
b. Deactivation of Kinesiology Physical Education Associate in Arts (AA)
c. MUSIC 40S Opera Workshop (clean-up in hours and units to match other "s" courses in Music)
d. MUSIC 73A Percussion Ensemble Instrument Techniques (title change to include "Ensemble")
e. MUSIC 73B Intermediate Percussion Ensemble (title change to remove "Instrument Techniques")
f. MUSIC 74S Orchestra (clean-up in hours to match other "s" courses in Music)
g. Replacement of INTARC 46 with INTARC 65 in Digital Production and Design Department Certificate
h. Replacement of NUTR 4 with NUTR 6 in General Science Associate in Arts (AA) and SMC GE pattern

(Course Revision: Noncredit)

i. OCC E00 Basic Computer Training (title change from Introduction to Computers for Older Adults)....6
j. OCC E20 Using The Internet Safely (title change to remove "for older adults")....8

(New Courses)

k. ENGR 1 Introduction to Engineering....10
l. ENGR 11 Engineering Graphics and Design (prerequisite: MATH 2)....14
m. ENGR 21 Circuit Analysis (pre/corequisite: MATH 15; prerequisite: PHYSCS 22)....22
n. ENGR 22 Circuit Analysis Lab (pre/corequisite: ENGR 21)....30
o. GEOL 10 / ASTRON 10 Exploration of the Solar System (Skills Advisory: (ASTRON 2 or ASTRON 4) and (GEOL 1 or GEOL 4))....38
p. KIN PE 34C Advanced Intermediate Karate (prerequisite: KIN PE 34B or equivalent)....45
q. [ANY DISCIPLINE] 99 Applied Learning in [ANY DISCIPLINE] (NOTE: this course is being proposed as a "template" for ANY discipline.)....50

(Program Revisions)

r. Athletic Coaching Associate in Science (AS) / Certificate of Achievement (restructuring and change in units from 21 to 24)....53
s. Environmental Science Associate in Arts (AA) / Certificate of Achievement (restructuring)....56
t. Changes to degrees and certificates as a result of courses considered on this agenda

VII. New Business

- Proposed Revision to AR 5150 from the CTE Noncredit Subcommittee....59
- Report from Community Service Offerings (Not-for-Credit)

VIII. Adjournment

Please advise Guido Davis Del Piccolo (x. 3561), Jennifer Merlic (x. 4616) or Irena Zugic (x. 4403) if you are unable to attend this meeting.

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1900 Pico Boulevard
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CURRICULUM COMMITTEE I MINUTES

Wednesday, May 18, 2016 / 3:00 p.m.
Loft Conference Room – Drescher Hall 300-E

Members Present:

Guido Davis Del Piccolo, *Chair*	Maral Hyeler	Georgia Lorenz	Gita Runkle
Jennifer Merlic, *Vice Chair*	William Konya	Walt Louie	David Shirinyan
Brenda Antrim (non-voting)	Helen LeDonne	Emin Menachekanian	Odemaris Valdivia
Christina Gabler	Karen Legg	Estela Narrie	
Sandra Hutchinson	Emily Lodmer	James Pacchioli	

Members Absent:

Ida Danzey	Kymia Mahjouri (AS)	Steve Maldonado (AS)	Darryl-Keith Ogata
Elaine Roque	Mark Tomasic		

Others Present:

Fariba Bolandhemat	Jenny Resnick	Steven Sedky	Sal Veas

MINUTES

(Items for action are listed alphabetically; items for information are listed numerically)

I. Call to order:
The meeting was called to order at 3:10pm.

II. Public Comments*:
None.

III. Approval of Minutes:
The minutes of May 4, 2016 were approved as presented.
Motion made by: Estela Narrie **Seconded by:** Karen Legg
Y: 14
N: 0
A: 2 (Jennifer Merlic and David Shirinyan)

IV. Chair's report:
- Guido reported that all approved action items from the previous meeting, inclusive of the changes to the Global Citizenship requirement, were approved by the Academic Senate on May 10, 2016.

V. Information Items:

(Course Updates)
1. BUS 1 Introduction To Business
2. BUS 32 Business Communications
3. ET 40 Digital Audio Fundamentals
4. KIN PE 16A Beginning Rock Climbing
5. KIN PE 41W Self Defense - Women
6. KIN PE 53A Table Tennis
7. KIN PE 53B Intermediate Table Tennis
8. KIN PE 54A Beginning Tennis First Level
9. KIN PE 54B Beginning Tennis Second Level
10. KIN PE 54C Intermediate Tennis
11. KIN PE 54D Advanced Tennis

**Five minutes is allotted to any member of the public who wishes to address the Curriculum Committee on a specific agenda item, for general public comments, or non-agenda items.*

12. MEDIA 1 Survey of Mass Media Communications
13. PRO CR 15 Sports Management

(Deactivation of cross listed courses)

14. ACCTG 26 / BUS 6	ACCTG 26 will be deactivated; BUS 6 will remain
15. ACCTG 35 / CIS 35	ACCTG 35 will be deactivated; CIS 35 will remain
16. BUS 29 / JOURN 43	BUS 29 will be deactivated; JOURN 43 will remain
17. BUS 33 / MEDIA 18	BUS 33 will be deactivated; MEDIA 18 will remain
18. CIS 19 / GIS 19 / GEOG 19	CIS 19 will be deactivated; CROSSLISTING GIS 19 / GEOG 19
19. CIS 21 / GIS 21	CIS 21 will be deactivated; GIS 21 will remain
20. CIS 23 / GEOG 23 / GIS 23	CIS 23 will be deactivated; CROSSLISTING GIS 23 / GEOG 23
21. CIS 27 / BUS 27	CIS 27 will be deactivated; BUS 27 will remain
22. CS 10 / MATH 10	CS 10 will be deactivated; MATH 10 will remain
23. ENGL 11 / FILM 11	ENGL 11 will be deactivated; FILM 11 will remain
24. ET 37 / GR DES 64	ET 37 will be deactivated; GR DES 64 will remain
25. HIST 48 / PHILOS 48	HIST 48 will be deactivated; PHILOS 48 will remain
26. HIST 30 / ENGL 32	HIST 30 will be deactivated; ENGL 32 will remain
27. TH ART 7 / ENGL 55	TH ART 7 will be deactivated; ENGL 55 will remain

(Reconfiguration of General Education Pattern)

28. CSU GE Area D

VI. Action Items:

(Consent Agenda)

a. ET 41 Digital Audio Post Production (title change from Digital Audio Editing)
Motion made by: Odemaris Valdivia **Seconded by:** Karen Legg
The motion passed unanimously.

(Course Revision: addition of prerequisite)

b. MCRBIO 1 Fundamentals Of Microbiology (addition of CHEM 19 as an option to satisfy existing CHEM prerequisites) – presented by Sandra Hutchinson
c. PHYS 3 Human Physiology (addition of CHEM 19 as an option to satisfy existing CHEM prerequisites) – presented by Sandra Hutchinson
Motion made by: Emily Lodmer **Seconded by:** Maral Hyeler
The motion passed unanimously.

(New Courses)

d. COSM 38B Mechanical Exfoliation (prerequisite: COSM 38) – presented by Helen LeDonne
(Approved with minor edits to phrasing)
Motion made by: Odemaris Valdivia **Seconded by:** William Konya
The motion passed unanimously.
Prerequisite COSM 38:
Motion made by: Karen Legg **Seconded by:** Helen LeDonne
The motion passed unanimously.
e. COSM 38C Chemical Exfoliation (pre/corequisite: COSM 20; prerequisite: COSM 38) – presented by Helen LeDonne
(Approved with minor edits to phrasing)
Motion made by: Odemaris Valdivia **Seconded by:** William Konya
The motion passed unanimously.
Pre/corequisite: COSM 20; prerequisite: COSM 38:
Motion made by: Karen Legg **Seconded by:** Helen LeDonne

The motion passed unanimously.

f. ET 41M Digital Music Production (prerequisite: ET 40) – presented by Walt Louie
(Listed in packet as ET 41B; Approved with minor edits)
Motion made by: Maral Hyeler **Seconded by:** Jennifer Merlic
The motion passed unanimously.
Prerequisite ET 40:
Motion made by: James Pacchioli **Seconded by:** Odemaris Valdivia
The motion passed unanimously.

(Global Citizenship)

g. HIST 6 History Of Latin America II – presented by Guido
Motion made by: Helen LeDonne **Seconded by:** Emily Lodmer
The motion passed unanimously.

(Program Revisions)

h. Accounting Associate in Science (AS) – presented by Jenny Resnick and Sal Veas
Motion made by: Georgia Lorenz **Seconded by:** William Konya
The motion passed unanimously.

i. Business Associate in Science (AS) (restructuring and decrease in units from 25 to 24) – presented by Steven Sedky and Sal Veas
(Approved with a change in title)
Motion made by: Georgia Lorenz **Seconded by:** William Konya
The motion passed unanimously.

j. Computer Business Applications Associate in Science (AS) / Certificate of Achievement (restructuring and increase in units from 27 to 30) – presented by Fariba Bolandhemat
Motion made by: James Pacchioli **Seconded by:** Karen Legg
The motion passed unanimously.

k. Digital Publishing Department Certificate – presented by Fariba Bolandhemat
(After further consideration, Committee decided to keep the 3 unit keyboarding courses; therefore, there was no change to the program)

l. General Accountant Certificate of Achievement (previously titled Accounting; restructuring; change in units) – presented by Jenny Resnick and Sal Veas
Motion made by: Georgia Lorenz **Seconded by:** William Konya
The motion passed unanimously.

m. Sales and Promotion Associate in Science (AS) / Certificate of Achievement (previously titled Merchandising; restructuring) – presented by Sal Veas
Motion made by: Georgia Lorenz **Seconded by:** William Konya
The motion passed unanimously.

n. Website Software Specialist Associate in Science (AS) / Certificate of Achievement (restructuring and decrease in units from 34 to 31) – presented by Fariba Bolandhemat
Motion made by: James Pacchioli **Seconded by:** Karen Legg
The motion passed unanimously.

o. Changes to degrees and certificates as a result of courses considered on this agenda
    a. Digital Media Associate in Science (AS) / Certificate of Achievement (addition of option of ET 41 or ET 41M)
    b. Cosmetology Associate in Science (AS) / Certificate of Achievement (addition of COSM 38B and COSM 38C; increase in total units by 1)
    c. Esthetician Department Certificate (addition of COSM 38B and COSM 38C; increase in total units by 1)
    Motion made by: David Shirinyan **Seconded by:** Gita Runkle
    The motion passed unanimously.

VII. Adjournment

The meeting adjourned at 4:49pm.

Santa Monica College
Course Update (NON-Substantial Changes)
Expanded Course Outline for EC-OCC E00 - Basic Computer Training

Course Cover	
Discipline	EC-OCC-Emeritus College: Occupational Education
Course Number	E00
Full Course Title	Basic Computer Training
Catalog Course Description	This course is designed to assist students in accessing the world of computers and technology. Students acquire introductory computer skills, enabling them to interact with colleagues, family and friends and promote self-expression. Students learn about personal computers, improve technical vocabulary, review typing and mouse skills, conduct basic computer maintenance, and learn how to use computer special function keys.
Rationale	Program review update and to meet the career development needs of older adults.
Proposal Information	
Proposed Start	Year: 2016 Semester: Fall
Proposed for Distance Ed	No
Proposed for Global Citizenship	No
Course Unit/Hours	
Variable Hour Exist	NO
Credit Hours	Min: 0
Weekly Lecture Hours	Min: 2.00 (Sem: 36)
Weekly Laboratory Hours	Min: 0
Total Semester Instructional Hours	36.00
Grading Methods	Non-credit Course
Program Applicability	
Designation	Noncredit
Course Objectives	
Upon satisfactory completion of the course, students will be able to:	
1. Identify various hardware components including displays, keyboards, processors, storage, and external devices.	
2. Demonstrate introductory knowledge of the operating system by personalizing one?s desktop, utilizing Windows file management strategies, and navigating the Windows environment.	
3. Exhibit basic typing and keyboarding skills.	
4. Identify and communicate appropriate technical and consumer-related information to salespersons when buying computer hardware or software.	
5. Explain how basic maintenance on a computer is performed.	
Course Content	
30%	Personalizing the desktop and user interface, file name and extensions, file formats, file management tips, physical file storage, backup basics.

30%	Buying a computer, microprocessor basics, RAM, storage basics / storage devices, basic input devices, display devices, printers, peripheral devices, basic maintenance.
40%	Microsoft Office Suite basics, Notepad, web browsers, security software basics, and email.
Total: 100%	

Methods of Presentation	
Methods	Lecture and Discussion Observation and Demonstration Other
Other Methods	Computer-assisted learning

Methods of Evaluation	
Methods	• 30% - Class Participation • 40% - Other Hands-on skills demonstration / faculty observation • 30% - Projects • 100% - Total

Appropriate Textbooks

Textbooks such as the following are appropriate:

Formatting Style	APA

Other

1. Teacher prepared handouts / manuals will be provided by the instructor.

Assignments

Sample Assignment

Activity 1: Create a folder on the Desktop and name it "Class Exercise". Open Notepad and type a short paragraph about today's weather. Save this file using the filename "Weather" and save it inside the "Class Exercise" folder.

Activity 2: Change the desktop background using one of the pre-installed photos on the computer or a photo of your own.

Student Learning Outcomes

1. Exhibit knowledge of the benefits and uses of personal computers including basic terminology, keyboard and mouse functions, and use of software applications.
2. Demonstrate basic computing techniques to achieve personal and professional goals in a confident manner.

Minimum Qualification

Minimum Qualifications:	Computer Information Systems

Library

List of suggested materials has been given to librarian?	No
Library has adequate materials to support course?	No

Santa Monica College
Course Update (NON-Substantial Changes)
Expanded Course Outline for EC-OCC E20 - Using The Internet Safely

Course Cover	
Discipline	EC-OCC-Emeritus College: Occupational Education
Course Number	E20
Full Course Title	Using The Internet Safely
Catalog Course Description	This course focuses on ways students can better protect themselves in a new technological environment and use the Internet to find valid information. Best practices in virus protection and using e-mail are discussed. In addition, students examine and discuss their computer and internet needs for personal and professional use.
Rationale	Program review update and to meet the career development needs of older adults.
Proposal Information	
Proposed Start	Year: 2016 Semester: Fall
Proposed for Distance Ed	No
Proposed for Global Citizenship	No
Course Unit/Hours	
Variable Hour Exist	NO
Credit Hours	Min: 0
Weekly Lecture Hours	Min: 2.00 (Sem: 36)
Weekly Laboratory Hours	Min: 0
Total Semester Instructional Hours	36.00
Grading Methods	Non-credit Course
Program Applicability	
Designation	Noncredit
Course Objectives	
Upon satisfactory completion of the course, students will be able to:	
1. Demonstrate basic skill of setting up an email account, composing, sending, and receiving personal emails with attachments and protecting personal information.	
2. Demonstrate basic skills in communicating via social media (e.g. Facebook).	
3. Demonstrate an understanding of the role and purpose of anti-virus software in internet security and safety in the context of using email or visiting web sites.	
4. Conduct Internet searches using a search engine (e.g. Google).	
5. Identify ways in which to protect oneself from Internet scams.	
Course Content	
35%	Email / Communication: creating an email account, sending email, receiving email, attaching pictures to an email message, Skype, social media (Facebook)
30%	Internet Security: viruses, trojans, identity theft, anti-virus software
35%	Internet Research, Entertainment and Shopping: enrolling in classes

	and programs online, finding information on the Internet by visiting various websites such as, Google, Google Maps, Yahoo Sports, Fox News, Yelp, and YouTube
Total: 100%	

Methods of Presentation

Methods	Lecture and Discussion
Other Methods	Skills demonstration, and Computer-assisted learning

Methods of Evaluation

Methods	• 30% - Class Participation • 40% - Other Hands on skills demonstration / faculty observatio • 30% - Projects • 100% - Total

Appropriate Textbooks

Textbooks such as the following are appropriate:

Formatting Style	APA

Other

1. Teacher prepared handouts / manuals will be provided by the Instructor.

Assignments

Sample Assignment

Activity 1: Compose an email to a friend, attach a photo, and CC another friend on the email.

Activity 2: Do a google search for each of the following three descriptions and note the differences (if any) in the search results:

- Cats
- Cute Cats
- Cute Cats with long hair

Student Learning Outcomes

1. Demonstrate a knowledge of how to use the Internet safely, including awareness of spam, virus protection, and personal security issues such as preventing identity theft.
2. Demonstrate the ability to send, receive, and attach documents in e-mail programs in a confident manner.

Minimum Qualification

Minimum Qualifications:	Computer Information Systems

Library

List of suggested materials has been given to librarian?	No
Library has adequate materials to support course?	No

Santa Monica College
New SMC Course
Expanded Course Outline for ENGR 1 - Introduction to Engineering

Course Cover	
Discipline	ENGR-ENGINEERING
Course Number	1
Full Course Title	Introduction to Engineering
Catalog Course Description	This course explores the branches of engineering, the functions of an engineer, and the industries in which engineers work. This course will also explain the engineering education pathways and explore effective strategies for students to reach their full academic potential. This course presents an introduction to the methods and tools of engineering problem solving and design, including the interface of the engineer with society and engineering ethics. Students will also develop communication skills pertinent to the engineering profession.
Rationale	This course would serve as an introductory course for students interested in pursuing a degree in engineering. Currently, many SMC students are looking to transfer to four-year institutions to study engineering without knowing what engineers do, what the different engineering disciplines are, and how to outline a pathway to obtain the degree. This course gives the students an opportunity to be exposed to the engineering profession before committing to this highly competitive field of study. Such a course is typical for most freshman engineering programs at the community college, UC, and CSU levels.
Proposal Information	
Proposed Start	Year: 2017 Semester: Spring
Proposed for Distance Ed	No
Proposed for Global Citizenship	No
Course Unit/Hours	
Variable Hour Exist	NO
Credit Hours	Min: 2.00
Weekly Lecture Hours	Min: 1.50 (Sem: 27)
Weekly Laboratory Hours	Min: 1.50 (Sem: 27)
Total Semester Instructional Hours	54.00
Repeatability	May be repeated 0 time(s)
Grading Methods	Letter Grade or P/NP
Transfer/General Ed	
Transferability	
Transfers to UC (pending review) Transfers to CSU	
IGETC Area:	
Does NOT satisfy any area of IGETC:	
CSU GE Area:	

Does NOT satisfy any area of CSU GE:
SMC GE Area:
Does NOT satisfy any area of SMC GE:

Comparable Transfer Courses:

- **California Community College**
  Skyline College
  Introduction to Engineering ENGR 100

Program Applicability	
Designation	Credit - Degree Applicable
Proposed For	**Stand-Alone (not in any program)**

Course Objectives

Upon satisfactory completion of the course, students will be able to:
1. Describe the role of engineers in society and classify the different engineering branches, the functions of an engineer, and industries in which they work.
2. Identify and describe academic pathways to bachelor's degrees in an engineering field.
3. Develop and apply effective strategies to succeed academically.
4. Explain engineering ethical principles and standards.
5. Demonstrate knowledge of effective practices for writing technical engineering documents and making oral presentations.
6. Analyze engineering problems using the engineering design process.
7. Demonstrate teamwork skills in working on an engineering design team.

Course Content	
20%	Role of engineers in society and comparison of engineering, science, and technology
22%	Engineering profession – branches, functions, industries, careers, job outlook
13%	Professionalism and ethics
15%	Engineering education: academic success, curriculum, pathways, preparation for upper division coursework
15%	Written and oral communication skills related to engineering
15%	Exposure to modern engineering tools and practices
Total: 100%	

Lab Content	
20%	Engineering design, creativity, and problem-solving process (includes working as a team member on an engineering design project)
15%	Introduction to engineering build, and implementation
20%	Familiarization with common engineering tools and equipment
10%	Introduction to data analysis using spreadsheets
10%	Introduction to programming and computer skills
10%	Introduction to circuits and circuit analysis
15%	Communication of engineering project
Total: 100%	

Methods of Presentation

Methods	Group Work Lab Lecture and Discussion Projects Visiting Lecturers

Methods of Evaluation

Methods	• 10% - Class Participation Participation in class discussions, exercises, activities, and projects • 30% - Group Projects Group project that will be evaluated as a Final Presentation • 15% - Homework 6-8 homework assignments based on reading and in-class work • 15% - Quizzes 3-8 quizzes to evaluate comprehension of reading and in-class work • 30% - Written assignments 6-8 written reflections summarizing new learned skills and ideas, based on reading, in-class work, and invited speakers • 100% - Total

Appropriate Textbooks

Textbooks such as the following are appropriate:

Formatting Style	APA

Textbooks

1. Landis, R. B.. *Studying Engineering: A Road Map to a Rewarding Career*, 4 ed. Discovery Press, 2013
2. Oakes, W. C.. *Engineering Your Future*, 8 ed. Oxford University Press, 2014
3. Edie, A., R. Jenison, L. Northup, S. Mickelson. *Engineering Fundamentals and Problem Solving*, ed. McGraw Hill Education, 2012
4. Horenstein, M. N.. *Design Concepts for Engineers*, ed. Prentice Hall, 2016

Assignments

Sample Assignment

Sample assignment 1:
Write a one-page answer to the following questions: Which field of engineering is of most interest to you? How does this field differ from the other fields of engineering? What is the role of this kind of engineer in society, and what do you hope to do with a degree in this field?

Sample assignment 2:
Identify five product, structure, or system designs you think could be improved. Pick one of those items and write a preliminary problem statement for the engineering design process. Also list three ways that you think the design could be improved in order to meet the problem.

Student Learning Outcomes

1. Identify the main branches of engineering, the education options, and the roles and

responsibilities of engineering in society.
2. Demonstrate the ability to evaluate personal knowledge, skills, and attitudes and identify which strategies would be most effective in reaching academic and professional success.
3. Demonstrate the ability to solve engineering problems using the engineering design process.

Minimum Qualification	
Minimum Qualifications:	Engineering (Masters Required) Engineering Technology (Masters Required)

Library	
List of suggested materials has been given to librarian?	Yes
Library has adequate materials to support course?	No
Additional Comments/Information	

Attached Files
Eng_1_Library_Materials

Santa Monica College
New SMC Course
Expanded Course Outline for ENGR 11 - Engineering Graphics and Design

Course Cover	
Discipline	ENGR-ENGINEERING
Course Number	11
Full Course Title	Engineering Graphics and Design
Catalog Course Description	This course covers the principles of engineering drawings to visually communicate engineering designs. The course also serves as an introduction to computer-aided design (CAD). Topics include the development of visualization skills, orthographic projections, dimensioning and tolerancing practices, and an introduction to the engineering design process. Sketching, engineering drawings, and 3-D CAD solid modeling skills are developed. The use of CAD software is an integral part of the course.
Rationale	This is a required course for most engineering majors, including mechanical engineering and electrical engineering, which make up the majority of the engineering student population.
Proposal Information	
Proposed Start	Year: 2017 Semester: Fall
Proposed for Distance Ed	No
Proposed for Global Citizenship	No
Course Unit/Hours	
Variable Hour Exist	NO
Credit Hours	Min: 3.00
Weekly Lecture Hours	Min: 2.00 (Sem: 36)
Weekly Laboratory Hours	Min: 3.00 (Sem: 54)
Total Semester Instructional Hours	90.00
Repeatability	May be repeated 0 time(s)
Grading Methods	Letter Grade or P/NP
Transfer/General Ed	
Transferability	
Transfers to UC (pending review) Transfers to CSU	
IGETC Area:	
Does NOT satisfy any area of IGETC:	
CSU GE Area:	
Does NOT satisfy any area of CSU GE:	
SMC GE Area:	
Does NOT satisfy any area of SMC GE:	

Comparable Transfer Courses:
• **California Community College** Santa Barbara City College Engineering Graphics ENGR 105 • **UC** UC Los Angeles Introduction to Computer-Aided Design and Drafting MECH&AE 94

Program Applicability	
Designation	Credit - Degree Applicable
Proposed For	**Stand-Alone (not in any program)**

Pre/Corequisites & Advisories
Prerequisite MATH 2

Content Review
MATH 2 - Prerequisite (Content to Content) MATH 2 - Prerequisite (Content to Content)

Course Objectives
Upon satisfactory completion of the course, students will be able to:
1. Apply rules of orthographic projection to create multiview drawings.
2. Create pictorials from orthographic views.
3. Use CAD software to create 2D engineering drawings, including working drawings and assembly drawings and 3D models and assemblies.
4. Create auxiliary and section views of an object following correct conventions.
5. Apply standards of dimensioning and tolerancing to engineering drawings.
6. Apply the engineering design process to a design project.

Course Content	
6%	Engineering Design
5%	Basic engineering drawing concepts
5%	Visualization skills
5%	Use of engineering/architect scales
5%	Multiview drawings
8%	Auxiliary
8%	Pictorial projections
8%	Section Views
8%	Dimensioning
8%	Tolerancing
8%	Threaded fastener terminology
20%	CAD: 2D Construction and Editing Tools, 3D solid modeling
6%	Detail and Assembly Drawings
0%	Descriptive Geometry (optional)
Total: 100%	

Lab Content

10%	Engineering Design
10%	Basic engineering drawing concepts
5%	Visualization skills
5%	Use of engineering/architect scales
5%	Multiview drawings
10%	Auxiliary and Sectional Views
10%	Pictorial projections
15%	Dimensioning and Tolerancing
25%	CAD: 2D Construction and Editing Tools, 3D solid modeling
5%	Detail and Assembly Drawings
Total: 100%	

Methods of Presentation

Methods	Group Work Lab Lecture and Discussion Projects

Methods of Evaluation

Methods	• 30% - Exams/Tests 2-3 midterm examinations covering lecture and laboratory material • 20% - Final exam Cumulative final examination • 15% - Homework Weekly homework assignments based on reading and in-class work • 15% - Lab Reports Weekly laboratory exercises • 20% - Projects Final design project including an engineering design document as a final report • 100% - Total

Appropriate Textbooks

Textbooks such as the following are appropriate:

Formatting Style	APA

Textbooks

1. Shih, R.H. *SOLIDWORKS 2016 and Engineering Graphics - An Integrated Approach*, ed. SDC Publications, 2016

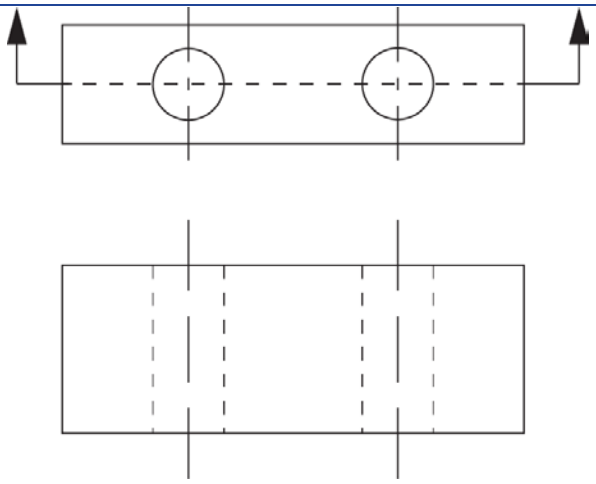
2. Plantenberg, K.. *Engineering Graphics Essentials*, ed. SDC Publications, 2010

Assignments

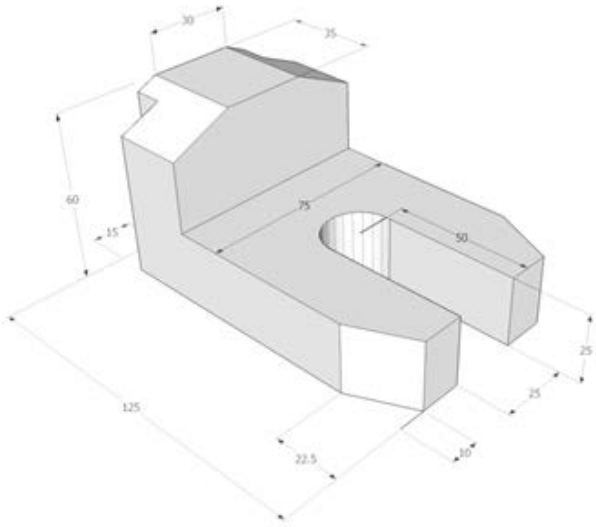
Sample Assignment

A weekly homework assignment consisting of 3-10 problems such as:

1. Modify the front view to make it a full section.



2. Construct the following part in your computer-aided drafting software. How many 2 dimensional views will be necessary to fully describe the part? How would you arrange and construct the 2D views?



Student Learning Outcomes
1. Demonstrate the ability to generate two- and three-dimensional and pictorial drawings of solid models using Computer Aided Drafting (CAD) for an engineering product using standard drawing conventions recognized in the engineering field.

Minimum Qualification	
Minimum Qualifications:	Engineering (Masters Required) Engineering Technology (Masters Required)

Library	
List of suggested materials has been given to librarian?	Yes
Library has adequate materials to support course?	No

Prerequisite / Corequisite Checklist and Worksheet

Engineering 11 ; Engineering Graphics and Design

Prerequisite: MATH 2 ; Precalculus

Other prerequisites, corequisites, and advisories also required for this course:
(Please note that a separate sheet is required for each prerequisite, corequisite, or advisory)

SECTION 1 - CONTENT REVIEW: If any criterion is not met, the prerequisite will be disallowed.

Criterion	Met	Not Met
1. Faculty with appropriate expertise have been involved in the determination of the prerequisite, corequisite or advisory.	X	
2. The department in which the course is (will be) taught has considered course objectives in accordance with accreditation standards.	X	
3. Selection of this prerequisite, corequisite or advisory is based on tests, the type and number of examinations, and grading criteria.	X	
4. Selection of this prerequisite, corequisite or advisory is based on a detailed course syllabus and outline of record, related instructional materials and course format.	X	
5. The body of knowledge and/or skills which are necessary for success before and/or concurrent with enrollment have been specified in writing.	X	
6. The course materials presented in this prerequisite or corequisite have been reviewed and determined to teach knowledge or skills needed for success in the course requiring this prerequisite.	X	
7. The body of knowledge and/or skills necessary for success in the course have been matched with the knowledge and skills developed by the prerequisite, corequisite or advisory.	X	
8. The body of knowledge and/or skills taught in the prerequisite are not an instructional unit of the course requiring the prerequisite.	X	
9. Written documentation that steps 1 to 8 above have been taken is readily available in departmental files.	X	

SECTION II - ADDITIONAL LEVEL OF SCRUTINY:

In addition to the affirmation of content review listed in section I, an additional level of scrutiny is also required. The level of scrutiny depends on which type of prerequisite is involved. There are six types and each is listed below. Please identify which one is being used to justify the proposed prerequisite. The additional level of scrutiny corresponding to each type of prerequisite is identified below.

X Type 3: Course in communication or computational skills as prerequisite for course other than another skills course (e.g., English 1 prerequisite for Anatomy 1)

Complete the Prerequisite Worksheet

Complete Data Analysis

Prerequisite Worksheet

ENTRANCE SKILLS FOR **Engineering 11**

(What the student needs to be able to do or understand BEFORE entering the course in order to be successful)

A)	Use transformation techniques, including vertical and horizontal shifts, compression, stretching, and reflection over the x- or y-axes.
B)	From memory, state and apply the definitions of the six trigonometric ratios of sides of right triangles; the definitions of the six trigonometric functions of real numbers using the unit circle.
C)	From memory, state and apply the fundamental reciprocal, quotient and Pythagorean trigonometric identities.
D)	Write algebraic and trigonometric relationships to solve application problems, including solution of right and oblique triangles by the Law of Sines and Law of Cosines.

EXIT SKILLS (objectives) OF **MATH 2**

(What the student has the demonstrated ability to do or understand AFTER successful completion of this course)

1.	Use transformation techniques, including vertical and horizontal shifts, compression, stretching, and reflection over the x- or y-axes to sketch the graph of a function.
2.	From memory, state and apply the definitions of the six trigonometric ratios of sides of right triangles; the definitions of the six trigonometric functions of real numbers using the unit circle; and the definitions, domains and ranges of the inverse sine, inverse cosine, and inverse tangent functions.
3.	From memory, state and apply the fundamental reciprocal, quotient and Pythagorean trigonometric identities and the sum, difference, double-angle, and half-angle identities for sine and cosine.
4.	Write algebraic and trigonometric relationships to solve application problems, including solution of right and oblique triangles by the Law of Sines and Law of Cosines.

		ENTRANCE SKILLS FOR Engineering 11							
		A	B	C	D	E	F	G	H
EXIT SKILLS FOR MATH 2	1	X							
	2		X						
	3			X					
	4				X				
	5								
	6								
	7								
	8								

Prerequisite / Corequisite Checklist and Worksheet Addendum
Section II – Additional Level of Scrutiny

Engineering 11 – Engineering Graphics and Design

California State University - Northridge (CSUN)

Santa Monica College Course	CSUN Equivalent
ENGR 11	ME 186/L
None	ME 101/L
MATH 2	MATH 105

From CSUN's course catalog

ME 101/L. Computer-Aided Design and Lab (1/1)
Prerequisites: ME 101/L
Introduction to concepts in engineering graphics and their implementation with Computer-Aided Design (CAD) parametric modeling tools. Creation of sketches, parts, assemblies, and engineering drawings. Application to group project, including oral and written reports. One hour of lecture and three hours of lab per week.

ME 101/L. Introduction to Mechanical Engineering and Lab (1/1)
Prerequisite: MATH 102, 104, 105, 150A or 150B, or a passing score on the Math Placement Test (MPT) that satisfies prerequisites for MATH 150A or MATH 255A.

California State University – Fresno (CSUF)

Santa Monica College Course	CSUF Equivalent
ENGR 11	ME 26
MATH 7	MATH 75

From CSUF's course catalog:

MR 26. Engineering Graphics.
Prerequisites: MATH 75 (or concurrently). Basic computer literacy required.
Principles of orthographic projection, dimensioning, and descriptive geometry. Applications to the solution of engineering problems including the use of interactive computer graphics. (Two 3-hour lecture labs) (CAN ENGR 2)

MATH 75. Calculus I
Prerequisites: elementary geometry, intermediate algebra, and trigonometry; or precalculus. Passing score on the department's Calculus Readiness Test required prior to enrollment. In addition, students must meet the ELM requirement.

Functions, graphs, limits, continuity, derivatives and applications, definite and indefinite integrals. G.E. Foundation B4. FS (CAN MATH 18).

San Francisco State University (SFSU)

Santa Monica College Course	SFSU Equivalent
ENGR 11	ENGR 101
ENGR 1	ENGR 100
Covered in MATH 2	Trigonometry

From SFSU's course catalog:

ENGR 101: Engineering Graphics (Unit: 1)
Must be taken concurrently with ENGR 100.
Engineering drawing as means of communication. Principles of engineering graphics. Freehand sketching and introduction to AutoCAD. Basic AutoCAD commands. Engineering drawing with AutoCAD. Orthographic projection. Lines and dimensioning. Reading blueprints. Normal, inclined, and cylindrical surfaces. Sectional views.

ENGR 100: Introduction to Engineering (Unit: 1)
Prerequisites: High school algebra and trigonometry.
Description of the major engineering fields and their subfields. Day to day activities of engineers. Engineering professionalism, ethics, communication skills, lifelong learning and career planning. Survival skills. Safety issues and School of Engineering policies. (Plus-minus letter grade only.)

Santa Monica College
New SMC Course
Expanded Course Outline for ENGR 21 - Circuit Analysis

Course Cover	
Discipline	ENGR-ENGINEERING
Course Number	21
Full Course Title	Circuit Analysis
Catalog Course Description	This course serves as an introduction to the analysis of electrical circuits through the use of analytical techniques based on the application of circuit laws and network theorems. The course covers DC and AC circuits containing resistors, capacitors, inductors, dependent sources, operational amplifiers, and/or switches. The analysis of these circuits include natural and forced responses of first and second order RLC circuits, the use of phasors, AC power calculations, power transfer, and energy concepts.
Rationale	This course is required for mechanical, electrical, computer, and general engineering majors, which make up over half of the engineering major population. This course is also considered a second-year course; without this course students transferring to the university as an engineer may find themselves a year behind their cohorts as this class is also a prerequisite for upper level engineering coursework.
Proposal Information	
Proposed Start	Year: 2017 Semester: Spring
Proposed for Distance Ed	No
Proposed for Global Citizenship	No
Course Unit/Hours	
Variable Hour Exist	NO
Credit Hours	Min: 3.00
Weekly Lecture Hours	Min: 3.00 (Sem: 54)
Total Semester Instructional Hours	54.00
Repeatability	May be repeated 0 time(s)
Grading Methods	Letter Grade or P/NP
Transfer/General Ed	
Transferability	
Transfers to UC (pending review) Transfers to CSU	
IGETC Area:	
Does NOT satisfy any area of IGETC:	
CSU GE Area:	
Does NOT satisfy any area of CSU GE:	
SMC GE Area:	
Does NOT satisfy any area of SMC GE:	
Comparable Transfer Courses:	

- **California Community College**
  Santa Barbara City College
  Electronic Circuits ENGR 117
- **UC**
  UC Los Angeles
  Circuit Theory I EE 10

Program Applicability	
Designation	Credit - Degree Applicable
Proposed For	**Stand-Alone (not in any program)**

Pre/Corequisites & Advisories

Prerequisite
PHYSCS 22
and

Pre/Corequisite
MATH 15

Content Review

MATH 15 - Pre/Corequisite (Content to Content)
PHYSCS 22 - Prerequisite (Content to Content)

Course Objectives

Upon satisfactory completion of the course, students will be able to:
1. Analyze DC circuits to find current, voltage, resistance, power, and/or energy.
2. Draw and label circuit diagrams and show thorough mathematical solutions.
3. Apply different circuit analysis techniques and demonstrate a process for selecting an appropriate technique for a given problem.
4. Solve circuits containing two or more Op Amps.
5. Find the transient response and complete response for RC, RL, and RLC circuits involving DC sources.
6. Analyze sinusoidal steady-state circuits using phasor diagrams.
7. Calculate average and complex power for AC circuits.

Course Content

5%	Ohm’s Law
5%	Electrical Power and Energy
5%	Kirchhoff’s Laws
4%	Equivalent Circuits
4%	Voltage and Current Division
2%	Dependent Sources
5%	Nodal and Mesh Analysis
5%	Thevenin and Norton Equivalent Circuits
5%	Superposition
10%	Operational Amplifiers and Analysis using Ideal Models
5%	Voltage gain and current limitations of non-ideal op amp circuits
10%	Transient and Complete response of RC, RL, and RLC Circuits
15%	Sinusoidal steady-state analysis including phasors, complex impedance,

	and power factor
10%	Frequency response of first and second order AC circuits
10%	AC Power including power transfer, power factor correction, transformers, and inductance
Total: 100%	

Methods of Presentation	
Methods	Lecture and Discussion
Other Methods	Classroom lectures with interactive discussions. Problem solving with questions and answers. Demonstrate and analyze practical problems. Assignments and quizzes will be important part of the course.

Methods of Evaluation	
Methods	• 30% - Exams/Tests 2-3 midterm examinations covering lecture material • 30% - Final exam Cumulative final exam • 20% - Homework Weekly homework assignments • 20% - Quizzes 3-5 quizzes covering lecture and reading material • 100% - Total

Appropriate Textbooks

Textbooks such as the following are appropriate:

Formatting Style	APA

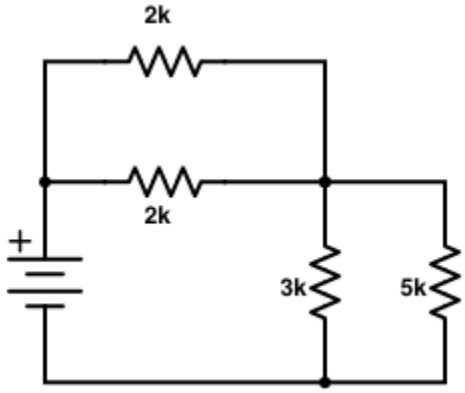
Textbooks

1. Nilsson J. W., S. Reidel. *Electric Circuits*, 10 ed. Prentice Hall, 2014, ISBN: 0133760030.
2. Hambley, A. R.. *Electrical Engineering: Principles & Applications*, ed. Prentice Hall, 2013, ISBN: 0133116646.
3. Alexander C., M. Sadiku. *Fundamentals of Electric Circuits*, ed. McGraw Hill Education, 2017, ISBN: 0073380571.
4. Boylestad, R.. *Introductory Circuit Analysis*, 13 ed. Pearson, 2015, ISBN: 0133923606.

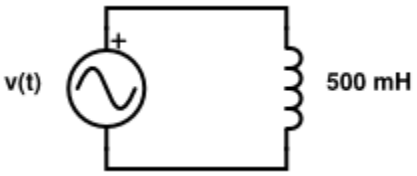
Assignments

Sample Assignment

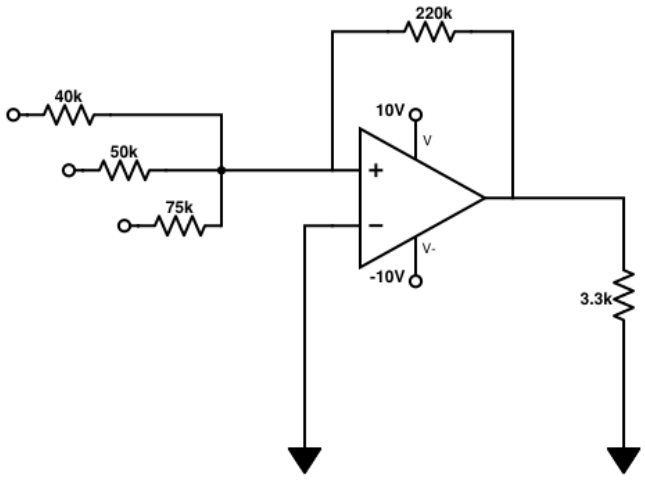
A weekly homework assignment consisting of 5-15 problems such as:
1. Find the Norton Equivalent circuit with respect to the 5 kΩ resistor



2. Find the phasor expression of the current in the circuit below if the voltage is given as v(t) = 30 cos(200t – 160°) V.



3. Assume the following op-amp is ideal.
a. What circuit configuration is shown in this figure?
b. What is the voltage drop across the 3.3 kΩ resistor if va = 1 V, vb = 2 V and vc = –5 V?



Student Learning Outcomes
1. Analyze AC and DC circuits using Kirchhoff's laws, mesh and nodal analysis, and network theorems.
2. When presented with a complex circuit diagram, identify and analyze key components, such as amplifier circuits, divider networks, and filters.

Minimum Qualification	
Minimum Qualifications:	Engineering (Masters Required)

Library	
List of suggested materials has been given to librarian?	Yes
Library has adequate materials to support course?	No

Prerequisite / Corequisite Checklist and Worksheet

Engineering 21 ; Circuit Analysis

Pre/Corequisite: MATH 15 ; Ordinary Differential Equations

Other prerequisites, corequisites, and advisories also required for this course:
(Please note that a separate sheet is required for each prerequisite, corequisite, or advisory)

PHYSCS 22 ; Electricity and Magnetism

SECTION 1 - CONTENT REVIEW: If any criterion is not met, the prerequisite will be disallowed.

Criterion	Met	Not Met
1. Faculty with appropriate expertise have been involved in the determination of the prerequisite, corequisite or advisory.	X	
2. The department in which the course is (will be) taught has considered course objectives in accordance with accreditation standards.	X	
3. Selection of this prerequisite, corequisite or advisory is based on tests, the type and number of examinations, and grading criteria.	X	
4. Selection of this prerequisite, corequisite or advisory is based on a detailed course syllabus and outline of record, related instructional materials and course format.	X	
5. The body of knowledge and/or skills which are necessary for success before and/or concurrent with enrollment have been specified in writing.	X	
6. The course materials presented in this prerequisite or corequisite have been reviewed and determined to teach knowledge or skills needed for success in the course requiring this prerequisite.	X	
7. The body of knowledge and/or skills necessary for success in the course have been matched with the knowledge and skills developed by the prerequisite, corequisite or advisory.	X	
8. The body of knowledge and/or skills taught in the prerequisite are not an instructional unit of the course requiring the prerequisite.	X	
9. Written documentation that steps 1 to 8 above have been taken is readily available in departmental files.	X	

SECTION II - ADDITIONAL LEVEL OF SCRUTINY:

In addition to the affirmation of content review listed in section I, an additional level of scrutiny is also required. The level of scrutiny depends on which type of prerequisite is involved. There are six types and each is listed below. Please identify which one is being used to justify the proposed prerequisite. The additional level of scrutiny corresponding to each type of prerequisite is identified below.

x Type 3: Course in communication or computational skills as prerequisite for course other than another skills course (e.g., English 1 prerequisite for Anatomy 1)

Complete the Prerequisite Worksheet

Complete Data Analysis

Prerequisite Worksheet

ENTRANCE SKILLS FOR **Engineering 21**

(What the student needs to be able to do or understand BEFORE entering the course in order to be successful)

A)	Identify and solve separable, homogeneous, exact, linear, Bernoulli, Ricatti and Clairaut first order differential equations.
B)	Solve linear differential equations with constant coefficients.
C)	
D)	
E)	
F)	
G)	
H)	

EXIT SKILLS (objectives) OF **MATH 15**

(What the student has the demonstrated ability to do or understand AFTER successful completion of this course)

1.	Identify and solve separable, homogeneous, exact, linear, Bernoulli, Ricatti and Clairaut first order differential equations.
2.	Solve linear differential equations with constant coefficients.
3.	
4.	
5.	
6.	
7.	

		ENTRANCE SKILLS FOR Engineering 21							
		A	B	C	D	E	F	G	H
EXIT SKILLS FOR MATH 15	1	X							
	2		X						
	3								
	4								
	5								
	6								
	7								
	8								

Prerequisite / Corequisite Checklist and Worksheet

Engineering 21 ; Circuit Analysis
Prerequisite: PHYSCS 22 ; Electricity and Magnetism
Other prerequisites, corequisites, and advisories also required for this course: (Please note that a separate sheet is required for each prerequisite, corequisite, or advisory)
MATH 15 ; Ordinary Differential Equations
(If applicable, enter Discipline and Course # here) ; (Enter Course Title here)

SECTION 1 - CONTENT REVIEW: If any criterion is not met, the prerequisite will be disallowed.

Criterion	Met	Not Met
1. Faculty with appropriate expertise have been involved in the determination of the prerequisite, corequisite or advisory.	**X**	
2. The department in which the course is (will be) taught has considered course objectives in accordance with accreditation standards.	**X**	
3. Selection of this prerequisite, corequisite or advisory is based on tests, the type and number of examinations, and grading criteria.	**X**	
4. Selection of this prerequisite, corequisite or advisory is based on a detailed course syllabus and outline of record, related instructional materials and course format.	**X**	
5. The body of knowledge and/or skills which are necessary for success before and/or concurrent with enrollment have been specified in writing.	**X**	
6. The course materials presented in this prerequisite or corequisite have been reviewed and determined to teach knowledge or skills needed for success in the course requiring this prerequisite.	**X**	
7. The body of knowledge and/or skills necessary for success in the course have been matched with the knowledge and skills developed by the prerequisite, corequisite or advisory.	**X**	
8. The body of knowledge and/or skills taught in the prerequisite are not an instructional unit of the course requiring the prerequisite.	**X**	
9. Written documentation that steps 1 to 8 above have been taken is readily available in departmental files.	**X**	

SECTION II - ADDITIONAL LEVEL OF SCRUTINY:

In addition to the affirmation of content review listed in section I, an additional level of scrutiny is also required. The level of scrutiny depends on which type of prerequisite is involved. There are six types and each is listed below. Please identify which one is being used to justify the proposed prerequisite. The additional level of scrutiny corresponding to each type of prerequisite is identified below.

Type 1: Standard Prerequisite (required prerequisite at UC or CSU)

X Identify three UC or CSU campuses that offer the equivalent course with the equivalent prerequisite.

List schools here: UCLA, UC Irvine, CSUN

Complete the Prerequisite Worksheet

Prerequisite Worksheet

ENTRANCE SKILLS FOR **Engineering 21**

(What the student needs to be able to do or understand BEFORE entering the course in order to be successful)

A)	Familiarity with oscilloscopes, multimeters, power supplies, and function generators. Familiarity with bread boarding techniques.
B)	Knowledge of current and voltage. Knowledge of resistors, capacitors, inductors, and DC and AC currents. Knowledge of RC, LC, and RLC circuits.
C)	
D)	
E)	
F)	
G)	
H)	

EXIT SKILLS (objectives) FOR **PHYSCS 22**

(What the student has the demonstrated ability to do or understand AFTER successful completion of this course)

1.	Operate, adjust, and use the equipment necessary in laboratory experiments to obtain quantitative measurements.
2.	Ultimately, through satisfying these objectives, a strong foundation is laid in the various principles of physics, so that students enrolling in more advanced courses will be able to succeed and continue their science education.
3.	
4.	
5.	
6.	
7.	

	ENTRANCE SKILLS FOR Engineering 21								
EXIT SKILLS FOR PHYSCS 22		A	B	C	D	E	F	G	H
	1	X							
	2		X						
	3								
	4								
	5								
	6								
	7								
	8								

Santa Monica College
New SMC Course
Expanded Course Outline for ENGR 22 - Circuit Analysis Lab

Course Cover	
Discipline	ENGR-ENGINEERING
Course Number	22
Full Course Title	Circuit Analysis Lab
Catalog Course Description	This course serves as an introduction to the construction, measurement, and design of elementary electrical circuits and basic operational amplifier circuits. Students gain familiarity with the basic use of electrical test and measurement instruments, including multimeters, oscilloscopes, power supplies, and function generators. Using principles of circuit analysis for DC, transient, and sinusoidal steady-state (AC) conditions, students develop data interpretation skills by using circuit simulation software and by direct measurements of circuits. Practical considerations such as component value tolerance and non-ideal aspects of laboratory instruments are also introduced.
Rationale	This course is required for mechanical, electrical, and computer, and general engineering majors, which make up over half of the engineering major population. This course is also considered a second-year course; without this course students transferring to the university as an engineer may find themselves a year behind their cohorts as this class is also a prerequisite for upper level engineering coursework.
Proposal Information	
Proposed Start	Year: 2017 Semester: Spring
Proposed for Distance Ed	No
Proposed for Global Citizenship	No
Course Unit/Hours	
Variable Hour Exist	NO
Credit Hours	Min: 1.00
Weekly Lecture Hours	Min: 0
Weekly Laboratory Hours	Min: 3.00 (Sem: 54)
Total Semester Instructional Hours	54.00
Repeatability	May be repeated 0 time(s)
Grading Methods	Letter Grade or P/NP
Transfer/General Ed	
Transferability	
Transfers to UC (pending review) Transfers to CSU	
IGETC Area:	
Does NOT satisfy any area of IGETC:	

CSU GE Area:
Does NOT satisfy any area of CSU GE:
SMC GE Area:
Does NOT satisfy any area of SMC GE:

Comparable Transfer Courses:

- **California Community College**
  Santa Barbara City College
  Electronic Circuits Laboratory ENGR 117L
- **UC**
  UC Los Angeles
  Circuits Laboratory I EE 11L

Program Applicability

Designation	Credit - Degree Applicable
Proposed For	**Stand-Alone (not in any program)**

Pre/Corequisites & Advisories

Pre/Corequisite
ENGR 21

Course Objectives

Upon satisfactory completion of the course, students will be able to:
1. Access and use the most basic functions of electrical test and measurement equipment including oscilloscopes, multimeters, function generators and power supplies.
2. Read circuit schematics and construct linear circuits using resistors, capacitors, inductors, and/or op amps.
3. Measure resistance, DC and AC voltages, current, and power, and experimentally verify the results for a variety of electrical circuits.
4. Test circuits, analyze data and compare measured performance to theory and simulation.
5. Use a circuit simulation program (PSPICE, MultiSIM) and other computer applications (MATLAB, MS Excel) to predict or describe circuit behavior.
6. Troubleshoot and repair simple electric circuits.
7. Record and document results of lab work using text and graphs.
8. Work effectively in groups by sharing responsibilities and collaborating on findings.

Course Content

5%	Use and functionality of test and measurement equipment (including digital multimeters, oscilloscopes, power supplies, and function generators)
5%	Circuit construction techniques for laboratory use ("breadboarding")
5%	Component identification and labeling; nominal and measured values; limitations on voltage, current, power dissipation
5%	Kirchoff's Laws
5%	Ohm's Law
5%	Voltage and Current Division
5%	Series and Parallel Circuits

5%	Equivalent circuits
5%	Thevenin equivalent circuit
5%	Superposition
5%	Power dissipation
10%	Operational Amplifiers and the practical voltage and current limits on the output of these devices
10%	Step response of RL, RC, and RLC circuits
10%	Frequency response of RL, RC, and RLC circuits (including resonance)
10%	Transformer and phasor techniques
5%	Laboratory Safety
Total: 100%	

Lab Content	
100%	All content is lab content.
Total: 100%	

Methods of Presentation	
Methods	Group Work Lab Projects
Other Methods	In-lab discussions to supplement laboratory exercises. Laboratory exercises will be an important part of the course.

Methods of Evaluation

Methods

- 15% - Exams/Tests
  1-2 midterm examinations covering lecture and laboratory material
- 15% - Final exam
  Cumulative final exam
- 50% - Lab Reports
  8-10 laboratory reports based on laboratory exercises
- 20% - Projects
  Final Group Project
- 100% - Total

Appropriate Textbooks

Textbooks such as the following are appropriate:

Formatting Style	APA

Textbooks

1. Boylestd, R.L., G. Kouourou. *Laboratory Manual for Introductory Circuit Analysis*, 13 ed. Pearson, 2015, ISBN: 0133923789.

Assignments

Sample Assignment

Excerpts of appropriate laboratory exercises are given below:
Kirchoff's Laws Analysis of Circuits
1. Build the circuit illustrated in Figure 7 with the following resistor values: R1 = 100Ω, R2 = 470Ω, R3 = 1000Ω, R4 = 680Ω, R5 = 2200Ω, R6 = 100Ω

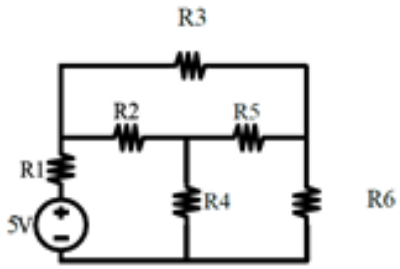


Fig.7. Kirchoff's Laws Analysis

2. Using Kirchoff's Voltage and Current Laws, find the theoretical values of the voltage and current across each resistor.
3. Measure each of the voltages and currents you have calculated and compare the theoretical and experimental values.

	V[V]	I[A]	R[Ω]
R1			
R2			
R3			
R4			
R5			
R6			

Discussion
1. Do your experimental results obey Kirchoff's Laws?

Student Learning Outcomes
1. Demonstrate the ability to design and assemble simple circuits to complete a given task (i.e. amplify an electrical signal and filter out high frequencies).
2. Utilize electronic equipment (multimeter, power supply, oscilloscope, function generator) to verify analysis of circuits.

Minimum Qualification	
Minimum Qualifications:	Engineering (Masters Required)

Library	
List of suggested materials has been given to librarian?	Yes
Library has adequate materials to support course?	No

Prerequisite / Corequisite Checklist and Worksheet

Engineering 22 ; Circuit Analysis Lab
Pre/Corequisite: Engineering 21 ; Circuit Analysis
Other prerequisites, corequisites, and advisories also required for this course: (Please note that a separate sheet is required for each prerequisite, corequisite, or advisory)

SECTION 1 - CONTENT REVIEW: If any criterion is not met, the prerequisite will be disallowed.

Criterion	Met	Not Met
1. Faculty with appropriate expertise have been involved in the determination of the prerequisite, corequisite or advisory.	**X**	
2. The department in which the course is (will be) taught has considered course objectives in accordance with accreditation standards.	**X**	
3. Selection of this prerequisite, corequisite or advisory is based on tests, the type and number of examinations, and grading criteria.	**X**	
4. Selection of this prerequisite, corequisite or advisory is based on a detailed course syllabus and outline of record, related instructional materials and course format.	**X**	
5. The body of knowledge and/or skills which are necessary for success before and/or concurrent with enrollment have been specified in writing.	**X**	
6. The course materials presented in this prerequisite or corequisite have been reviewed and determined to teach knowledge or skills needed for success in the course requiring this prerequisite.	**X**	
7. The body of knowledge and/or skills necessary for success in the course have been matched with the knowledge and skills developed by the prerequisite, corequisite or advisory.	**X**	
8. The body of knowledge and/or skills taught in the prerequisite are not an instructional unit of the course requiring the prerequisite.	**X**	
9. Written documentation that steps 1 to 8 above have been taken is readily available in departmental files.	**X**	

SECTION II - ADDITIONAL LEVEL OF SCRUTINY:

In addition to the affirmation of content review listed in section I, an additional level of scrutiny is also required. The level of scrutiny depends on which type of prerequisite is involved. There are six types and each is listed below. Please identify which one is being used to justify the proposed prerequisite. The additional level of scrutiny corresponding to each type of prerequisite is identified below.

Type 1: Standard Prerequisite (required prerequisite at UC or CSU)

X Identify three UC or CSU campuses that offer the equivalent course with the equivalent prerequisite.

List schools here: UCLA, UC Irvine, CSUN

Complete the Prerequisite Worksheet

Prerequisite Worksheet

ENTRANCE SKILLS FOR **Engineering 22**

(What the student needs to be able to do or understand BEFORE entering the course in order to be successful)

A)	Analyze DC circuits to find current, voltage, resistance, power, and/or energy.
B)	Draw and label circuit diagrams and show thorough mathematical solutions.
C)	Apply different circuit analysis techniques and demonstrate a process for selecting an appropriate technique for a given problem.
D)	Solve circuits containing two or more Op Amps.
E)	Find the transient response and complete response for RC, RL, and RLC circuits involving DC sources.
F)	Analyze sinusoidal steady-state circuits using phasor diagrams.
G)	Calculate average and complex power for AC circuits.
H)	

EXIT SKILLS (objectives) OF **Engineering 21**

(What the student has the demonstrated ability to do or understand AFTER successful completion of this course)

1.	Analyze DC circuits to find current, voltage, resistance, power, and/or energy.
2.	Draw and label circuit diagrams and show thorough mathematical solutions.
3.	Apply different circuit analysis techniques and demonstrate a process for selecting an appropriate technique for a given problem.
4.	Solve circuits containing two or more Op Amps.
5.	Find the transient response and complete response for RC, RL, and RLC circuits involving DC sources.
6.	Analyze sinusoidal steady-state circuits using phasor diagrams.
7.	Calculate average and complex power for AC circuits.
8.	

	ENTRANCE SKILLS FOR Engineering 22								
EXIT SKILLS FOR Engineering 21		A	B	C	D	E	F	G	H
	1	X							
	2		X						
	3			X					
	4				X				
	5					X			
	6						X		
	7							X	
	8								

Prerequisite / Corequisite Checklist and Worksheet Addendum
Section II – Additional Level of Scrutiny

Engineering 21 & 22 – Circuit Analysis and Lab

University of California, Los Angeles (UCLA)

Santa Monica College Course	UCLA Equivalent
ENGR 21	EE 10
ENG 22	EE 11L
MATH 13	MATH 33A or MATH 33AH
MATH 15	MATH 33B
PHYS 22	PHYS 1B

From UCLA's course catalog

EE 10. Circuit Theory I. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 3 (or Computer Science 1 or Materials Science 10), Mathematics 33A, Physics 1B.
Corequisites: course 11L (enforced only for Computer Science and Engineering and Electrical Engineering majors), Mathematics 33B.
Introduction to linear circuit analysis. Resistive circuits, capacitors, inductors and ideal transformers, Kirchhoff laws, node and loop analysis, first-order circuits, second-order circuits, Thevenin and Norton theorem, sinusoidal steady state. Letter grading.

EE 11L. Circuits Laboratory I. (1) Lecture, one hour; laboratory, one hour; outside study, one hour. Enforced corequisite: course 10. Experiments with basic circuits containing resistors, capacitors, inductors, and transformers. Ohm's law voltage and current division, Thevenin and Norton equivalent circuits, superposition, transient and steady state analysis. Letter grading.

University of California, Irvine (UCI)

Santa Monica College Course	UCI Equivalent
ENGR 21	EECS 70A
ENG 22	EE 70LA
MATH 15	MATH 3D
PHYS 22	PHYS 7D

From UCI's course catalog:

EECS 70A. Network Analysis I. 4 Units.
Corequisite: MATH 3D.

Prerequisite: PHYSICS 7D and (EECS 10 or EECS 12 or ENGRMAE 10 or CSE 41 or I&C SCI 31).
Modeling and analysis of electrical networks. Basic network theorems. Sinusoidal steady state and transient analysis of RLC networks and the impedance concept. Course may be offered online.

EECS 70LA. Network Analysis I Laboratory. 1 Unit.
Laboratory to accompany EECS 70A.

California State University, Northridge (CSUN)

Santa Monica College Course	UCLA Equivalent
ENGR 21	ECE 240
ENG 22	ECE 240L
MATH 11	MATH 250
MATH 15	MATH 280
PHYS 22	PHYS 220B/L

From CSUN's course catalog:

ECE 240. Electrical Engineering Fundamentals (3)
Prerequisites: PHYS 220B/L and MATH 250.
Corequisite: MATH 280 or ECE 280.
Recommended Corequisite: ECE 240L.
Introduction to the theory and analysis of electrical circuits; basic circuit elements, including the operational amplifier; circuit theorems; dc circuits; forced and natural responses of simple circuits; sinusoidal steady state analysis; and the use of a standard computer aided circuit analysis program. Consideration is given to power, energy, impedance, phasors, frequency response and their use in circuit design. 3 hours lecture per week.

ECE 240L. Electrical Engineering Fundamentals Lab (1)
Prerequisites: MATH 250; PHYS 220B/L.
Corequisite: ECE 240.
Introduction to the practical aspects of electrical circuits, analysis and design. Lab includes experiments on resistive circuits, operational amplifiers, network theorems, 1st and 2nd order circuits, dc meters, passive filters, resonant circuits and RC active filters. Several experiments emphasize the design process. 3 hours lab per week.

Santa Monica College
New SMC Course
Expanded Course Outline for GEOL 10 - Exploration of the Solar System

Course Cover	
Discipline	GEOL-GEOLOGY
Course Number	10
Full Course Title	Exploration of the Solar System
Cross Listed Course	ASTRON 10
Catalog Course Description	This course provides a geology-focused view of solar system exploration. What is currently known about the geology of other planets, natural satellites and asteroids is discussed. What planetary scientists do and how to access and utilize data collected from modern and historic planetary missions and Earth-based studies is also examined.
Rationale	This course is being developed as a part of the NASA MUREP MC3I grant. It will provide an overview of planetary science for students who are interested in pursuing careers in this field.
Proposal Information	
Proposed Start	Year: 2017 Semester: Spring

Course Unit/Hours	
Credit Hours	Min: 3.00
Weekly Lecture Hours	Min: 3.00 (Sem: 54)
Weekly Laboratory Hours	Min:
Weekly Arranged Hours	Min:
Total Semester Instructional Hours	54.00
Load Factor	1.00
Repeatability	May be repeated 0 time(s)
Grading Methods	Letter Grade or P/NP

Transfer/General Ed
Transferability
Transfers to UC (pending review) Transfers to CSU
IGETC Area:
(pending review) • IGETC Area 5: Physical and Biological Sciences (mark all that apply) o 5A: Physical Science
CSU GE Area:
(pending review) • CSU GE Area B: Scientific Inquiry and Quantitative Reasoning o B1 - Physical Science

SMC GE Area:

- GENERAL EDUCATION PATTERN (SMC GE)
  - Area I: Natural Science

Comparable Transfer Courses:

- **California Community College**
  Foothill College
  Planetary Geology GEOL 22

- **UC**
  UC Davis
  The Solar System GEL 36

Program Applicability

Designation	Credit - Degree Applicable
Proposed For	

Pre/Corequisites & Advisories

Skills Advisory
ASTRON 2 or ASTRON 4

Skills Advisory
GEOL 1 or GEOL 4

Course Objectives

Upon satisfactory completion of the course, students will be able to:

1. Explain how solar system formation influenced the characteristics of planets and other planetary bodies that exist in the solar system today.
2. Describe modern geologic processes that occur in the interior and surface planetary processes and address questions that are being asked by the planetary science community today.
3. Access and utilize data from past and present planetary missions and Earth-based studies.
4. Outline the wide range of fields of research included in planetary science.

Course Content

5%	Introduction to planetary science.
5%	Solar system formation and evolution of planetary bodies.
10%	Significance of rocks and minerals.
20%	Geology of terrestrial planets and other solid solar system bodies.
20%	Planetary exploration instrumentation and techniques.
35%	Accessing, analyzing, and interpreting publicly available planetary science data.
5%	Possibilities of resource mining on other planetary bodies.
Total: 100%	

Methods of Presentation	
Methods	Field Trips Lecture and Discussion Online instructor-provided resources Projects Visiting Lecturers

Methods of Evaluation	
Methods	• 10% - Class Work • 20% - Exams/Tests • 10% - Final exam • 30% - Homework Homework assignments may be separate from research project or relate to research project (e.g., milestones like literature research). • 30% - Research Projects End semester project and presentation. Projects should include data analysis and interpretation. • 100% - Total

Appropriate Textbooks

Textbooks such as the following are appropriate:

1. Vita-Finzi, C., and Fortes, D. *Planetary Geology*, 2 ed. Dunedin Academic Press Ltd., 2013, ISBN: 1780460154.

2. Christiansen, E.H., and Hamblin, W.K. *Exploring the Planets*, 2 ed. Prentice Hall, 1995, ISBN: 0023224215.

Assignments

Assignments provided to students will vary depending on the focus of the instructor leading the course. Here are a range of assignments that could be used.

Assignment #1 (Introduction to easily accessible data and image interpretation using geology fundamentals)

In this assignment, students access geologic maps of Venus and Io, as well as google.com/mars/ to make qualitative assessments of surface processes on these planetary bodies.

Objective: Introduce students to easily accessible planetary science data and have them practice identification of basic surface geology and geologic processes.

Google Mars includes elevation, visible and thermal infrared images of the Martian surface. Since thermal infrared images are the highest resolution, students will be using these to interpret the Martian surface. Students will be asked to identify river channels, impact craters, volcanoes, rifts, dunes, and other important features. They will also be asked to explain the reasoning behind the spatial relationship between these features (when applicable).

Assignment #2 (Introduction to more advanced techniques of imagery analysis)

In this assignment, students will be introduced to quantitative, rather than qualitative, imagery analysis. Students will characterize velocity and discharge of ancient Martian fluvial systems using remote sensing data (Mars Orbiter Laser Altimetry data) and currently published methods.

Objective: Introduce students to quantitative methods of interpreting imagery.

Students are provided images of five fluvial (river) valley systems, as well as a method to reconstruct water flow velocity and discharge using two methods currently provided in the planetary science literature. They will:

- calculate the flow velocity and discharge of the five fluvial river valley systems;
- compare these Martian "river systems" to Earth analogs;
- evaluate the strengths and weaknesses of the two reconstruction methods; and
- identify sources of error/uncertainty.

Assignment #3 (Introduction to the JMars and Planetary Data System)

In this assignment, students will use JMARS (Java mission-planning and Analysis for Remote Sensing) to access data housed in NASA's Planetary Data System (PDS). JMARS is a program that is freely available to the public and can be used to overlay data collected from various NASA missions.

Objective: Students will learn the basics of JMARS and what data are available in the program. They will use these data to evaluate the relationship between thermal inertia and dust cover.

Students will be walked through a quick tutorial and overview of JMARS to introduce them to the program.

They will load TES thermal inertia layer and TES dust cover index layers into JMARS. Thermal inertia and dust cover are highly variable on the Martian surface.

To make a quantitative assessment of the relationship between thermal inertia and dust cover, students will plot thermal inertia vs. dust cover values for each pixel in three separate regions, Olympus Mons, Gale Crater, and Valles Marineris. These data can be downloaded from JMARS by making a custom shape layer.

Students are required to submit a plot of their data and statistical analysis of the correlation between the two aforementioned parameters.

Student Learning Outcomes	
1. Identify past and present geologic processes on planetary bodies other than Earth.	
2. Access, analyze and interpret data from past and present planetary science missions and Earth-based studies.	
Minimum Qualification	
Minimum Qualifications:	Astronomy (Masters Required) Earth Science (Masters Required) Geography (Masters Required)
Library	
List of suggested materials has been given to librarian?	No
Library has adequate materials to support course?	Yes

ADVISORY Checklist and Worksheet

Geology 10 / Astronomy 10

Prerequisite**:** None

Skills Advisories: Geology 1 or 4 and Astronomy 2 or 4

SECTION 1 - CONTENT REVIEW: If any criterion is not met, the prerequisite will be disallowed.

Criterion	Met	Not Met
1. Faculty with appropriate expertise have been involved in the determination of the prerequisite, corequisite or advisory.	**X**	
2. The department in which the course is (will be) taught has considered course objectives in accordance with accreditation standards.	**X**	
3. Selection of this prerequisite, corequisite or advisory is based on tests, the type and number of examinations, and grading criteria.	**X**	
4. Selection of this prerequisite, corequisite or advisory is based on a detailed course syllabus and outline of record, related instructional materials and course format.	**X**	
5. The body of knowledge and/or skills which are necessary for success before and/or concurrent with enrollment have been specified in writing.	**X**	
6. The course materials presented in this prerequisite or corequisite have been reviewed and determined to teach knowledge or skills needed for success in the course requiring this prerequisite.	**X**	
7. The body of knowledge and/or skills necessary for success in the course have been matched with the knowledge and skills developed by the prerequisite, corequisite or advisory.	**X**	
8. The body of knowledge and/or skills taught in the prerequisite are not an instructional unit of the course requiring the prerequisite.	**X**	
9. Written documentation that steps 1 to 8 above have been taken is readily available in departmental files.	**X**	

SECTION II - ADDITIONAL LEVEL OF SCRUTINY:

In addition to the affirmation of content review listed in section I, an additional level of scrutiny is also required. The level of scrutiny depends on which type of prerequisite is involved. There are six types and each is listed below. Please identify which one is being used to justify the proposed prerequisite. The additional level of scrutiny corresponding to each type of prerequisite is identified below.

X Type 2: Sequential within and across disciplines (e.g., Physics 7, 8, 9, …)
Complete the Prerequisite Worksheet

Advisory Worksheet

ENTRANCE SKILLS RECOMMENDED FOR **Geology 10 / Astronomy 10**

(It is recommended that the student to be able to do or understand the following BEFORE entering the course)

A)	apply the scientific method
B)	describe basic rock types and their significance
C)	recognize basic geologic features and their significance
D)	describe the basics of solar system formation
E)	recognize where potential scientific questions arise in the study of other planets and planetary bodies
F)	describe basic techniques for acquiring data about other planets and planetary bodies

EXIT SKILLS (objectives) OF **Geology 1 or 4 and Astronomy 2 or 4**

(What the student has the demonstrated ability to do or understand AFTER successful completion of this course)

1.	Explain the scientific method especially as it applies to major geologic theories like plate tectonics. (Geology)
2.	Demonstrate an understanding of the plate tectonics theory by recognizing geologic features associated with plate tectonic boundaries and explaining the geologic processes involved in their formation. (Geology)
3.	Apply basic geologic principles to make observations and find resources needed to make informed decisions to avoid hazards associated with earthquakes, volcanoes, landslides, etc. (Geology)
4.	Describe our current theories and evidence for the formation of the solar system. (Astronomy)
5.	Compare and contrast the other terrestrial planets and their moons with Earth and describe the reasons for the similarities and differences. (Astronomy)
6.	Identify the properties of asteroids, meteoroids and comets and the important information they provide about the origin and evolution of the solar system. (Astronomy)
7.	Describe the vital role that robotic space probes play in furthering our understanding of the solar system. (Astronomy)

	RECOMMENDED ENTRANCE SKILLS FOR Geology 10 / Astronomy 10								
EXIT SKILLS FOR Geology or Astronomy		A	B	C	D	E	F	G	H
	1	Geol							
	2		Geol						
	3			Geol					
	4				Astron				
	5					Astron			
	6					Astron			
	7						Astron		
	8								

Santa Monica College
New SMC Course
Expanded Course Outline for KIN PE 34C - Advanced Intermediate Karate

Course Cover	
Discipline	KIN PE-KINESIOLOGY PHYSICAL EDUCATION
Course Number	34C
Full Course Title	Advanced Intermediate Karate
Catalog Course Description	This is an advanced intermediate level course in traditional karate. Advanced techniques and movements not covered in the beginning and intermediate classes are introduced. Power generation through breathing techniques, whole body movement fluidity, and meditation is emphasized at a more advanced level than Kin 34B. Students learn advanced timing for traditional kata forms of "Seisan" and "Ananku", and some students are introduced to the kata "Wansu". Specific history associated with students' direct Okinawan karate lineage is discussed.
Proposal Information	
Proposed Start	Year: 2016 Semester: Fall
Proposed for Distance Ed	No
Proposed for Global Citizenship	No
Course Unit/Hours	
Variable Hour Exist	NO
Credit Hours	Min: 1.00
Weekly Lecture Hours	Min: 0
Weekly Laboratory Hours	Min: 3.00 (Sem: 54)
Total Semester Instructional Hours	54.00
Repeatability	May be repeated 0 time(s)
Grading Methods	Letter Grade or P/NP
Transfer/General Ed	
Transferability	
Transfers to CSU	
IGETC Area:	
Does NOT satisfy any area of IGETC:	
CSU GE Area:	
• CSU GE Area E: Lifelong Understanding and Self-Development o E - Lifelong Understanding and Self-Development	
SMC GE Area:	
Does NOT satisfy any area of SMC GE:	
Program Applicability	
Designation	Credit - Degree Applicable
Proposed For	AS Degree

	Athletic Coaching Certificate of Achievement Athletic Coaching

Pre/Corequisites & Advisories
Prerequisite KIN PE 34B or equivalent

Course Objectives
Upon satisfactory completion of the course, students will be able to:
1. Analyze and effectively demonstrate at the intermediate advanced level multi-step karate techniques
2. Address real world self-defense scenarios in intermediate advanced "free-style" form.
3. Demonstrate the intermediate advanced timing for the traditional forms of "Seisan" and "Ananku" (and as students progress at different rates, for some students the additional form of "Wansu")
4. Demonstrate basic historic understanding of direct lineage of Zenokukai Shorinji Ryu Karate.

Course Content	
10%	History of Zentokukai Shorinji Ryu Karate
25%	Multi-step karate blocking and striking techniques with established appropriate timing and distance adjustment toward opponent
25%	Address "free-form" self-defense scenarios
25%	Kata performance
15%	Physical conditioning for karate
Total: 100%	

Lab Content	
100%	Physical application of skills.
Total: 100%	

Methods of Presentation	
Methods	Group Work Lab Lecture and Discussion Observation and Demonstration Visiting Lecturers

Methods of Evaluation	
Methods	• 75% - Class Participation continual assessment of classroom work and participation throughout the semester • 10% - Exams/Tests Written and/or physical performance progress assessment • 15% - Final exam Assessment of physical performance of course material plus written exam and/or research paper. • 100% - Total

Appropriate Textbooks	
Textbooks such as the following are appropriate:	
Formatting Style	APA
Textbooks	
1. Kane, L.A., Wilder, K.. *The Way of Kata, A Comprehensive Guide to Deciphering Martial Applications*, ed. YMAA Publication Center, 2005, ISBN: 1-59439-058-4.	

Assignments
Sample Assignment
1. Study and demonstrate basic knowledge of the history of Zentokukai Shorinji Ryu Karate 2. Perform Seisan and Ananku in advanced timing and interpret moves 3. Analyze and perform multi-step free-form self-defense technique options

Student Learning Outcomes
1. Demonstrate understanding of the history of Zentokukai Shorinji Ryu Karate
2. Perform and analyze the kata forms of "Seisan" and "Ananku" in advanced timing
3. Effectively analyze and demonstrate free-form multi-step self-defense options

Minimum Qualification	
Minimum Qualifications:	Martial Arts/Self-Defense

Library	
List of suggested materials has been given to librarian?	No
Library has adequate materials to support course?	Yes
Additional Comments/Information	

Prerequisite / Corequisite Checklist and Worksheet

Kinesiology 34C
Prerequisite: Kinesiology 34B ; Intermediate Karate
Other prerequisites, corequisites, and advisories also required for this course: None

SECTION 1 - CONTENT REVIEW: If any criterion is not met, the prerequisite will be disallowed.

Criterion	Met	Not Met
1. Faculty with appropriate expertise have been involved in the determination of the prerequisite, corequisite or advisory.	**X**	
2. The department in which the course is (will be) taught has considered course objectives in accordance with accreditation standards.	**X**	
3. Selection of this prerequisite, corequisite or advisory is based on tests, the type and number of examinations, and grading criteria.	**X**	
4. Selection of this prerequisite, corequisite or advisory is based on a detailed course syllabus and outline of record, related instructional materials and course format.	**X**	
5. The body of knowledge and/or skills which are necessary for success before and/or concurrent with enrollment have been specified in writing.	**X**	
6. The course materials presented in this prerequisite or corequisite have been reviewed and determined to teach knowledge or skills needed for success in the course requiring this prerequisite.	**X**	
7. The body of knowledge and/or skills necessary for success in the course have been matched with the knowledge and skills developed by the prerequisite, corequisite or advisory.	**X**	
8. The body of knowledge and/or skills taught in the prerequisite are not an instructional unit of the course requiring the prerequisite.	**X**	
9. Written documentation that steps 1 to 8 above have been taken is readily available in departmental files.	**X**	

SECTION II - ADDITIONAL LEVEL OF SCRUTINY:

In addition to the affirmation of content review listed in section I, an additional level of scrutiny is also required. The level of scrutiny depends on which type of prerequisite is involved. There are six types and each is listed below. Please identify which one is being used to justify the proposed prerequisite. The additional level of scrutiny corresponding to each type of prerequisite is identified below.

X Type 2: Sequential within and across disciplines (e.g., Physics 7, 8, 9, …)
Complete the Prerequisite Worksheet

Prerequisite Worksheet

ENTRANCE SKILLS FOR **KIN PE 34C**

(What the student needs to be able to do or understand BEFORE entering the course in order to be successful)

A)	Complete sequence of “Seisan Kata”; First forms common to Zentokukai Okinwan Shorinji ryu karate
B)	Complete sequence of “Tuite no kata”. Grappling techniques’ form.
C)	Intermediate types of striking and blocking techniques
D)	Multi-step self-defense techniques
E)	
F)	
G)	
H)	

EXIT SKILLS (objectives) OF **KIN PE 34B**

(What the student has the demonstrated ability to do or understand AFTER successful completion of this course)

1.	Complete sequence of “Seisan Kata”; First forms common to Zentokukai Okinwan Shorinji ryu karate
2.	Complete sequence of “Tuite no kata”. Grappling techniques’ form.
3.	Intermediate types of striking and blocking techniques
4.	Multi-step self-defense techniques
5.	
6.	
7.	
8.	

		ENTRANCE SKILLS FOR KIN PE 34C							
		A	B	C	D	E	F	G	H
EXIT SKILLS FOR KIN PE 34B	1	X		X	X				
	2		X	X	X				
	3			X	X				
	4				X				
	5								
	6								
	7								
	8								

New SMC Course

Expanded Course Outline for [ANY DISCIPLINE] 99 - Applied Learning in [ANY DISCIPLINE]

Course Cover	
Discipline	[ANY DISCIPLINE] (e.g., POL SC-POLITICAL SCIENCE)
Course Number	99
Full Course Title	Applied Learning in [ANY DISCIPLINE] (e.g., Applied Learning in Political Science)
Catalog Course Description	This course - taken in tandem with another course in the discipline - enables a student to apply course content in a meaningful and relevant way to a particular activity. In this hands-on course, students engage in applied learning through unpaid experiential activities organized by the student (in conjunction with SMC's applied / service learning center) and approved by the instructor. Students will develop a customized reading list relevant to their particular activity, complete a minimum of 15 hours of volunteer work with that activity, and submit academically-sound written reports regarding the activity. By applying course material to their experience, students develop a deeper understanding of the discipline.
Rationale	Creating an option for both students and faculty to use applied/experiential learning without full integration into existing courses.
Proposal Information	
Proposed Start	Year: 2016 Semester: Fall

Course Unit/Hours	
Credit Hours	Min: 1.00
Weekly Lecture Hours	Min:
Weekly Laboratory Hours	Min:
Weekly Arranged Hours	Min: 3.00 (Sem: 54)
Total Semester Instructional Hours	54.00
Load Factor	
Load Factor Rationale	most likely this would be compensated in the same fashion as Independent Studies and the Global and Poli Sci 95 courses.
Repeatability	May be repeated 0 time(s)
Grading Methods	P/NP Only

Transfer/General Ed
Transferability
Transfers to CSU
Does NOT satisfy any area of IGETC:
Does NOT satisfy any area of CSU GE:

Does NOT satisfy any area of SMC GE:	
Program Applicability	
Designation	Credit - Degree Applicable
Pre/Corequisites & Advisories	
Corequisite any course in the discipline of at least 3 units	
Course Objectives	
Upon satisfactory completion of the course, students will be able to:	
1. Demonstrate an understanding and awareness of the issues they are working to address.	
2. Apply theories and/or empirical knowledge from a course in the discipline to the activity in which the student is involved.	
3. Assess the value and effectiveness of the activity in which the student is involved.	
4. Demonstrate and identify the behaviors appropriate to the setting within which they are working.	
Arranged Hours Objectives	
Upon satisfactory completion of the course, students will be able to:	
1. all course objectives are arranged hours objectives	
Course Content	
15%	Orientation: • course requirements • basic concepts in experiential / applied learning • how discipline-specific content will be applied in the particular activity in which the student is involved.
10%	Development of an appropriate reading list.
75%	Applying theoretical and empirical knowledge through applied study.
Total: 100%	
Arranged Hours Instructional Activities	
Methods	Field Experience Service Learning
Methods of Presentation	
Methods	Field Experience Service Learning
Methods of Evaluation	
Methods	• 10% - Other Development of appropriate reading list • 30% - Papers Final Paper • 60% - Written assignments Academically-sound Experiential Learning Reflection Journals • 100% - Total

Appropriate Textbooks
Textbooks such as the following are appropriate:
1. Colby, Anne, Ehrlich, Thomas, et. al. *Educating Citizens: Preparing America's Undergraduates for Lives of Moral and Civic Responsibility*, 1st ed. San Francisco: Jossey-Bass, 2010, ISBN: 978-047057382.
2. Smith, Michael B., et. al. *Citizenship Across the Curriculum (Scholarship of Teaching and Learning)*, 1st ed. Indiana University Press, 2010, ISBN: 978-025322179.

Assignments
Sample Assignment
Maintain a weekly journal in which you reflect upon the connections between the theoretical concepts being discussed in your discipline and the practical work you are doing in your applied learning activity. Write a paper in which you evaluate and critique the effectiveness and value of your work in terms of concepts being discussed in your discipline.

Student Learning Outcomes
1. Exhibit, through their behavior and course work, strong academic behaviors, including regular attendance, timeliness, participation in activities, and adherence to the College Honor Code, as well as a heightened sense of personal efficacy and civic responsibility.
2. Demonstrate through oral and/or written work knowledge of the discipline and how to apply that knowledge to understand and explain the work being done in their placement.
3. Demonstrate proficiency in the research, analytical, and/or communication skills necessary to make compelling and original arguments about the work of their placement site that identify, explain, and apply theories learned in the companion course in the discipline.
4. Demonstrate a level of engagement in the subject matter that enables and motivates the integration of acquired knowledge and skills beyond applied learning experience.

Minimum Qualification	
Minimum Qualifications:	Other - The minimum qualifications of this course are the same as the minimum qualifications for the co-requisite / companion course.

Library	
List of suggested materials has been given to librarian?	No
Library has adequate materials to support course?	No

Athletic Coaching EXISTING
Associate in Science (AS) / Certificate of Achievement

(effective Not Specified, Not Specified)

The Athletic Coaching program prepares students to coach a variety of sports and includes courses in Kinesiology Physical Education, Athletics, and Nutrition. Athletic Coaching can lead to employment as sport coaches at the High School, Collegiate, and Club levels. For additional career possibilities, visit the Career Services Center on the main campus to utilize computerized career information systems and other valuable career resources.

Area of Emphasis

Required Courses:		**Units**
KIN PE 3	Introduction To Exercise Physiology I	3
KIN PE 4	Introduction To Sport Psychology	3
NUTR 4	Healthy Lifestyle Food And Fitness	3
PRO CR 11	Introduction To Sports Injuries	3
PRO CR 19	Field Experience	2

Area of Emphasis; select one course: (3 units)		**Units**
PRO CR 3	Coaching Of Racquet Sports	3
PRO CR 4	Coaching Of Track And Field	3
PRO CR 6A	Coaching Of Football	3
PRO CR 6B	Coaching Of Baseball	3
PRO CR 7	Coaching of Soccer	3
PRO CR 8	Coaching of Basketball	3
PRO CR 9	Coaching of Volleyball	3

Select four different Sports Areas, with at least one course in the Advanced Level: (4 units)		**Units**
KIN PE 9C	Advanced Basketball	1
KIN PE 10	Fitness Lab	1
KIN PE 11C	Advanced Weight Training	1
KIN PE 14B	Intermediate Cross Country	1
KIN PE 17	Boxing For Fitness	1
KIN PE 19A	Fitness - Anaerobic Exercises	1
or		
KIN PE 19B	Fitness - Aerobic Exercises	1
or		
KIN PE 19C	Fitness - Body Level Exercises	1
KIN PE 19D	Fitness - Aquatic Exercises	1
KIN PE 19E	Pilates Mat Exercise	1
KIN PE 21	Coed Touch Football	1
KIN PE 25C	Advanced Golf	1
KIN PE 43C	Advanced Soccer	1
KIN PE 48D	Advanced Swimming	1
KIN PE 50C	Advanced Water Polo	1
KIN PE 54D	Advanced Tennis	1
KIN PE 56A	Beginning Track And Field	1
KIN PE 57C	Advanced Volleyball	1
VAR PE 60	Conditioning For Intercollegiate Sport	1
PRO CR 25	Personal Trainer Preparation	3
KIN PE 56B	Intermediate Track and Field	1

Total Units for Area of Emphasis: 21

Athletic Coaching REVISION 5/2016
Associate in Science (AS) / Certificate of Achievement

(effective Not Specified, Not Specified)

The Athletic Coaching program prepares students to coach a variety of sports and fitness. The program includes courses in Kinesiology Physical Education, Athletics, and Nutrition. Students will understand the basics of training and fitness, prevention of injuries, nutrition and the fundamental skills of the sport in their area of emphasis. Athletic Coaching can lead to employment as sport coaches at the High School, Collegiate, Recreational and Club levels. For additional career possibilities, visit the Career Services Center on the main campus to utilize computerized career information systems and other valuable career resources.

Program Learning Outcomes:

Upon completion of the program, students will demonstrate how to safely train and prepare athletes and teams for competitions. They will also demonstrate the skills and techniques associated with the sport in their area of specialization and will demonstrate familiarity with techniques for motivating athletes and team performance.

Area of Emphasis

Required Core Courses (17 units):		**Units**
KIN PE 3	Introduction To Exercise Physiology I	3
KIN PE 4	Introduction To Sport Psychology	3
NUTR 4	Healthy Lifestyle Food And Fitness	3
PRO CR 11	Introduction To Sports Injuries	3
PRO CR 19	Field Experience	2

HEALTH 11	First Aid and Cardio-Pulmonary Resuscitation	3
or		
PRO CR 12	Emergency Care And Water Safety	3

Area of Specialization; select one course: (3 units)		**Units**
PRO CR 3	Coaching Of Racquet Sports	3
PRO CR 4	Coaching Of Track And Field	3
PRO CR 6A	Coaching Of Football	3
PRO CR 6B	Coaching Of Baseball	3
PRO CR 7	Coaching of Soccer	3
PRO CR 8	Coaching of Basketball	3
PRO CR 9	Coaching of Volleyball	3
PRO CR 25	Personal Trainer Preparation	3

Required Fitness Courses: complete a minimum of 2 units by selecting from the following courses:		**Units**
KIN PE 2	Achieving Lifetime Fitness	3
KIN PE 10A	Fitness Lab	1
KIN PE 10B	Intermediate Fitness Lab	1
KIN PE 10C	Advanced Fitness Lab	1
KIN PE 11A	Beginning Weight Training	1
KIN PE 11B	Intermediate Weight Training	1
KIN PE 11C	Advanced Weight Training	1
KIN PE 11N	Individual Weight Training	1
KIN PE 17	Boxing For Fitness	1
KIN PE 19A	Fitness - Anaerobic Exercises	1
KIN PE 19B	Fitness - Aerobic Exercises	1
KIN PE 19C	Fitness - Body Level Exercises	1
KIN PE 19D	Fitness - Aquatic Exercises	1
KIN PE 19E	Pilates Mat Exercise	1

KIN PE 58A	Beginning Yoga	1
KIN PE 58B	Intermediate Yoga	1
KIN PE 58C	Advanced Yoga	1
VAR PE 60	Conditioning For Intercollegiate Sport	1

Sports Area: select 2 courses: 1 from List A and a different course from List B

List A (1 unit required):	**Units**
Includes all KIN PE 1 unit courses that are NOT in the Fitness list	1

	List B: Highest Level Courses (1 unit required):	**Units**
KIN PE 5C	Advanced Badminton	1
KIN PE 9C	Advanced Basketball	1
KIN PE 9W	Advanced Basketball For Women	1
KIN PE 10C	Advanced Fitness Lab	1
KIN PE 11C	Advanced Weight Training	1
KIN PE 14C	Advanced Cross Country	1
KIN PE 16B	Intermediate Rock Climbing	1
KIN PE 21C	Advanced Football For Men	1
KIN PE 25D	Golf Player Development	1
KIN PE 34C	Advanced Intermediate Karate	1
KIN PE 43D	Competitive Soccer	1
KIN PE 45C	Advanced Softball	1
KIN PE 48D	Advanced Swimming	1
KIN PE 50C	Advanced Water Polo	1
KIN PE 51B	Intermediate Surfing	1
KIN PE 53B	Intermediate Table Tennis	1
KIN PE 54D	Advanced Tennis	1
KIN PE 56B	Intermediate Track and Field	1
KIN PE 57C	Advanced Volleyball	1
KIN PE 59C	Advanced Beach Volleyball	1
VAR PE 9V	Varsity Basketball For Men	2
VAR PE 9W	Varsity Basketball For Women	2
VAR PE 14V	Varsity Cross Country For Men	2
VAR PE 14W	Varsity Cross Country For Women	2
VAR PE 20V	Advanced Football For Men	1
VAR PE 21V	Varsity Football For Men	2
VAR PE 43V	Varsity Soccer For Men	2
VAR PE 43W	Varsity Soccer For Women	2
VAR PE 45W	Varsity Softball For Women	2
VAR PE 48V	Varsity Swimming And Diving For Men	2
VAR PE 48W	Varsity Swimming And Diving For Women	2
VAR PE 50V	Varsity Water Polo For Men	2
VAR PE 50W	Varsity Water Polo For Women	2
VAR PE 54W	Varsity Tennis For Women	2
VAR PE 56V	Varsity Track And Field For Men	2
VAR PE 56W	Varsity Track And Field For Women	2
VAR PE 57V	Varsity Volleyball For Men	2
VAR PE 57W	Varsity Volleyball For Women	2

Total Units for Area of Emphasis: 24

ENVIRONMENTAL SCIENCE EXISTING
Associate in Arts (AA) / Certificate of Achievement

(effective Not Specified, Not Specified)

The Environmental Science Program is an interdisciplinary and multidisciplinary course of study that presents an overview of ecological issues from a scientific perspective. With a broad foundation across the natural sciences, the coursework examines the interrelated nature of environmental and social systems. This program is designed to equip students with the skills and tools to successfully use the scientific method while studying and solving environmental problems.

Program Learning Outcomes:

Upon completion of the program, students will demonstrate through oral and written work knowledge of the physical, biological, and social sciences required to effectively address current environmental issues, and be prepared to pursue further study in an Environmental Science program (or related field of study) at the baccalaureate level. In addition, students will be proficient in the research, analytical, and communication skills necessary to present a critical analysis of the interplay between natural and social systems, the behaviors that impact and affect the environment, and proposed solutions to the myriad environmental challenges facing the world today.

Area of Emphasis

Required Core Courses: (6 units)		**Units**
BIOL 9	Environmental Biology	3
ENVRN 7 *(same as GEOG 7)*	Introduction To Environmental Studies	3

Field Studies/Applied: (3 units minimum)		**Units**
Biology 45A-Z, Field Studies in Natural History		0.5
Biology 46A-Z, Field Studies in Natural History		0.5
BOTANY 3	Field Botany	4
Environmental Studies 88A-C, Independent Studies in Environmental Studies		1
GEOG 20 *(same as GIS 20, CIS 20)*	Introduction To Geographic Information Systems	3
GEOG 35F	Field Study California	1
GEOG 35S	Geography Field Studies	1
ZOOL 20	Vertebrate Field Studies	3

Ecology/Physical Science/Natural Science: (4 units)		**Units**
BIOL 3	Fundamentals Of Biology	4
BIOL 15	Marine Biology With Laboratory	4
BIOL 21	Cell Biology And Evolution	4
BOTANY 1	General Botany	4
ZOOL 5	Introductory Zoology	4

Physical Science: Chemistry (5 units)		**Units**
CHEM 10	Introductory General Chemistry	5
CHEM 11	General Chemistry I	5

Physical Science: Physics (4 units)		**Units**
PHYSCS 6	General Physics 1 with Lab	4
PHYSCS 7	General Physics 2 with Lab	4
PHYSCS 8	Calculus-based General Physics 1 with Lab	4
PHYSCS 14	Introductory Physics With Laboratory	4

Earth Science: (3 units minimum)		**Units**
GEOG 1	Introduction to the Natural Environment	3
GEOG 3	Weather And Climate	3
GEOG 5	Physical Geography With Lab	4
GEOL 1	Physical Geology without Lab	3
GEOL 3	Introduction to Environmental Geology	3
GEOL 4	Physical Geology with Laboratory	4

GEOL 31	Introduction to Physical Oceanography	3

Mathematics: (8 units minimum required as specified)		**Units**
MATH 28	Calculus 1 for Business and Social Science	5
and		
MATH 29	Calculus 2 for Business and Social Science	3
or		
MATH 7	Calculus 1	5
and		
MATH 8	Calculus 2	5

Social Science: (6 units required as specified)

Group A: choose one of the following courses:		**Units**
ECON 1	Principles Of Microeconomics	3
ECON 2	Principles Of Macroeconomics	3
POL SC 1	National And California Government	3

Group B: choose one of the following courses:		**Units**
ANTHRO 2	Cultural Anthropology	3
PHILOS 20 *(same as ENVRN 20)*	Environmental Ethics	3
POL SC 22 *(same as ENVRN 22)*	Environmental Politics And Policies	3
ENVRN 40 *(same as PSYCH 40)*	Environmental Psychology	3
or		
PSYCH 40 *(same as ENVRN 40)*	Environmental Psychology	3
GEOG 2	Introduction To Human Geography	3
GEOG 8 *(same as URBAN 8)*	Introduction to Urban Studies	3
or		
URBAN 8 *(same as GEOG 8)*	Introduction To Urban Studies	3
GLOBAL 11 *(same as GEOG 11)*	World Geography Introduction To Global Studies	3
GEOG 14	Geography Of California	3
PSYCH 1	General Psychology	3
SOCIOL 1	Introduction To Sociology	3
SOCIOL 1s	Introduction To Sociology - Service Learning	3
SOCIOL 2	Social Problems	3
SOCIOL 2s	Social Problems-- Service Learning	3
HIST 14 *(same as ENVRN 14)*	U.S. Environmental History	3
HIST 32 *(same as ENVRN 32)*	Global Environmental History	3

Total Units for Area of Emphasis: 39

ENVIRONMENTAL SCIENCE REVISION 5/2016
Associate in Arts (AA) / Certificate of Achievement

(effective Not Specified, Not Specified)

The Environmental Science Program is an interdisciplinary and multidisciplinary course of study that presents an overview of ecological issues from a scientific perspective. With a broad foundation across the natural sciences, the coursework examines the interrelated nature of environmental systems. This program is designed to equip students with the skills and tools to successfully use the scientific method while studying and solving environmental problems.

RATIONALE FOR CHANGE: to make it more useful for transfer into the sciences. THIS PROGRAM WILL NOW BE LISTED SEPARATELY FROM ENVIRONMENTAL STUDIES. IT WILL ALSO BE REFERENCED IN THE SCIENCE SECTION OF THE CATALOG (ALONG WITH GENERAL SCIENCE)

Program Learning Outcomes:

Upon completion of the program, students will demonstrate through oral and written work knowledge of the physical and biological sciences required to effectively address current environmental issues, and be prepared to pursue further study in an Environmental Science program (or related field of study) at the baccalaureate level. In addition, students will be proficient in interplay between natural and social systems, the behaviors that impact and affect the environment, and proposed solutions to the myriad environmental challenges facing the world today.

Area of Emphasis

Select one of the following Introductory Courses (3 units):		**Units**
BIOL 9	Environmental Biology	3
or		
ENVRN 7 *(same as GEOG 7)*	Introduction To Environmental Studies	3

Required Life Science Courses (9 units):		**Units**
BIOL 21	Cell Biology And Evolution	4
BIOL 23	Organismal And Environmental Biology	5

Required Chemistry Courses (10 units):		**Units**
CHEM 11	General Chemistry I	5
CHEM 12	General Chemistry II	5

Geology and/or Physics Courses: Select one of the following courses (4 units minimum):		**Units**
GEOL 4	Physical Geology with Laboratory	4
PHYSCS 6	General Physics 1 with Lab	4
PHYSCS 7	General Physics 2 with Lab	4
PHYSCS 8	Calculus-based General Physics 1 with Lab	4
PHYSCS 9	Calculus-based General Physics 2 with Lab	4
PHYSCS 21	Mechanics With Lab	5
PHYSCS 22	Electricity And Magnetism with Lab	5

Required Mathematics Courses (10 units):		**Units**
MATH 7	Calculus 1	5
MATH 8	Calculus 2	5

Economics Courses: Select one of the following courses (3 units):		**Units**
ECON 1	Principles Of Microeconomics	3
ECON 2	Principles Of Macroeconomics	3

Total Units for Area of Emphasis:	**39**

ADDITIONAL INFORMATION:

Students intending to transfer in the field of Environmental Science (or related field) are **STRONGLY** encouraged to review the lower division requirements of their intended transfer destination as the requirements can vary significantly.

PROPOSED CHANGES FROM THE CTE NONCREDIT SUBCOMMITTEE

ARTICLE 5100: CURRICULUM

AR 5150 Continuing Education

Continuing Education offers courses in three areas:

Santa Monica College offers Not-for-Credit Community Services courses and Noncredit classes.

Not-for-Credit

- **Community Services** develops fee-based classes to meet the interests of the community. A brochure is published four times a year describing the classes. Brochures are mailed to the residents of Santa Monica and to individuals who have recently enrolled in Community Services classes.

  Development of courses: Ideas for courses are generated from a variety of sources: potential instructors submit ideas, main campus staff and faculty make suggestions, the office staff get requests from students, or the program administrator invites proposals related to specific topics. Each proposal is carefully reviewed. Courses that are deemed of interest to the community and for which we have the necessary facilities, may be selected for further development. These potential courses are discussed and adjusted by the program administrator and potential instructor. The proposal is then forwarded to the department most closely aligned to the topic of the class. Based on consultation with the department, additional adjustments may or may not be needed. Courses selected to be included in the course offerings are submitted to the Board of Trustees for approval. Course proposals are presented to the SMC Curriculum Committee as a review item—no formal action required.

Extension Classes

Extension classes are also fee-based and are listed in the brochure. These classes are usually in a higher fee bracket and promote continuing professional training and enrichment.

Development of courses: The process is the same as that described above for Community Services classes. These classes generally require more extensive discussions with the department chairs since they are often designed and staffed by credit instructors or instructors recommended by the department chair. Depending on the department, these courses may also carry CEU credits.

~~**Noncredit**~~

- ~~**Noncredit** classes are non-graded and free. The classes are designed to strengthen basic skills, English as a Second Language (ESL) and skills that promote workforce preparation, as well as serve special populations. The state supports this instruction by funding the college according to student positive attendance based on a minimum class size.~~
- ~~Development of courses: Only courses that have been approved by the Chancellor's Office can be offered. New courses are developed to meet the state mandate for adult noncredit instruction, faculty requests, student requests and community requests. The authorized categories of instruction are: Parenting, Basic Skills, ESL, Instruction for Immigrants, and Short Term Vocational. Authorized classes for Older Adults are currently offered through SMC's Emeritus College. Classes are authorized but not currently offered in Health & Safety, Home Economics and for Adults with Disabilities. Classes are offered mostly at off site locations, but also on the main~~

~~campus and Madison campus. New courses are submitted to the Chancellor's Office for approval and taken to the college Curriculum Committee as an information item. When the proposed course outline for a new course is received, the Chair and the Secretary of the Curriculum Committee will distribute copies for review and response to departments with similar courses. Following consideration by the Curriculum Committee, new courses are submitted to the Chancellor's office for approval.~~

Noncredit

Santa Monica College offers adults a gateway into the college community through noncredit courses designed to prepare students to achieve academic, career and lifelong learning goals, including preparing to succeed in college level work. Noncredit courses must be in accordance with Title 5. Chancellor's Office approval is required for all noncredit courses. There is no tuition cost to the student. However, students may be required to purchase instructional materials.

Course Approval

Departments may submit proposals of new noncredit courses by following Administrative Regulations 5111 and 5112.

Organizational Structure

Noncredit courses originate and / or are developed in collaboration with instructional departments. Exceptions include those noncredit courses meeting the needs of special populations such as but not limited to Emeritus College.

Course Quality Standards

a. The same standards of course quality shall be applied to noncredit are applied to credit courses, including regular, effective instruction and evaluation of progress towards meeting student learning outcomes.
b. Determinations and judgments about the quality of noncredit courses and programs shall be made in accordance with Board Policy, Article 5200 ("Academic Freedom and Responsibilities"), and Administrative Regulations, Articles 5100 ("Curriculum"), 5200 ("Academic Freedom and Responsibilities"), and 5300 ("Academic Standards"), inclusive.