The following Curriculum and Instruction Committee members were present:

**FACULTY CHAIRPERSONS**
Janis Dwyer

**INSTRUCTIONAL UNITS**
Jason Huh, Business and Computer Technology
Jeff Hupp, Counseling and Career Services
Ruoyi Wu, English
Walter Butler, Library
Karyn Skiathitis, Health Sciences
Tamara Knott-Silva, Kinesiology, Health and Athletics
Lindsey Ruiz, Languages
Sharon Bober, Mathematics
Kerin Huber, Natural Science
Brad Steed, Performing and Communication Arts
Charlotte Williams, Social Science
David Cuatt, Visual Arts and Media Studies

**DIVISION DEANS**
Rocco Cifone, Career and Technical Education
Natalie Russell, Humanities
Carrie Starbird, Natural Science
James Arnwine, Fine Arts

**STUDENTS**
None

**MEMBERS EX-OFFICIO**
Terry Giugni, VP/Asst Superintendent, Instruction
Edward Martinez, Interim Articulation Officer
Katie Datko, Distance Education

**RESOURCE EXPERTS**
None

**VISITORS**
Dan Cole
Melissa Anderson

*In accordance with the Ralph M. Brown Act and SB 751, the minutes of the Curriculum and Instruction Committee of Pasadena City College record the votes of all committee members as follows: (1) Members not present are presumed not to have voted; (2) the names of members of minority or abstaining votes are recorded; (3) all other members are presumed to have voted in the majority.*
WELCOME

Self-introductions were made.

II. PUBLIC COMMENT

None.

III. APPROVAL OF MINUTES

Meeting Minutes for the Emergency Meeting, December 1, 2016

ON MOTION by Ruoyi Wu and seconded by Jeff Hupp, the committee voted to approve the minutes of the emergency meeting.

Meeting Minutes for December 1, 2016

ON MOTION by Edward Martinez and seconded by Charlotte Williams, the committee voted to approve the minutes of meeting 11.

IV. COMMITTEE DISCUSSION (with vote)

ON MOTION by Edward Martinez and seconded by Walter Butler, the committee voted unanimously to approve the modifications of ASTR 020, BIOL 020, CHEM 020, ENVS 020, GEOG 020, and GEOL 020.

ON MOTION by Katie Datko and seconded by Karyn Skiathitis, the committee voted unanimously to approve the addition of BIOL 110.

ON MOTION by Charlotte Williams and seconded by Walter Butler, the committee voted unanimously to approve the modification of BIOL 102A.

ON MOTION by Karyn Skiathitis and seconded by David Cuatt, the committee voted unanimously to approve the modification of ANAT 025.

ON MOTION by Karyn Skiathitis and seconded by Tammy Knott-Silva, the committee voted unanimously to approve the modification of EDUC 013.

ON MOTION by Tammy Knott-Silva and seconded by Walter Butler, the committee voted unanimously to approve the reactivation of the SPED (Special Education) discipline.
ON MOTION by Katie Datko and seconded by Charlotte Williams, the committee voted unanimously to approve the modifications of CIS 030 and 062.

ON MOTION by David Cuatt and seconded by Karyn Skiathitis, the committee voted to table discussion on COUN 012 until at least spring semester.

ON MOTION by Rocky Cifone and seconded by Katie Datko, the committee voted unanimously to approve the modification of the local AA/AS General Education courses with the exclusion of the diversity and global studies list.

ON MOTION by Rocky Cifone and seconded by Katie Datko, the committee voted unanimously to approve the addition of the Music – Music Entrepreneurship Certificate of Achievement.

ON MOTION by Ruoyi Wu and seconded by Katie Datko, the committee voted unanimously to approve the addition of the Digital Media – Interactive Art and Design Certificate of Achievement.

ON MOTION by Karyn Skiathitis and seconded by Tammy Knott-Silva, the committee voted unanimously to approve the addition of ART 081.

ON MOTION by David Cuatt and seconded by Tammy Knott-Silva, the committee voted unanimously to approve the addition of the Automotive Technology – Air Conditioning Technician and Automotive Technology – Electrical/Electronics Systems Occupational Skills Certificates.

ON MOTION by Tammy Knott-Silva and seconded by Katie Datko, the committee voted unanimously to approve the modification to the Nursing – Licensed Vocational Nurse to Registered Nurse – A.S. Degree.

ON MOTION by Edward Martinez and seconded by Charlotte Williams, the committee voted unanimously to approve the addition of the Elder Care Occupational Skills Certificate.

ON MOTION by Carrie Starbird and seconded by Michael Cranfill, the committee voted unanimously to approve the modification of MATH 038.

ON MOTION by Brad Steed and seconded by Ruoyi Wu, the committee voted unanimously to approve the modifications of MUSC 071A, 071B, 072, 096A, 096B, and 096C.

ON MOTION by Karyn Skiathitis and seconded by Jeff Hupp, the committee voted unanimously to approve the modification of SPSV 101.

ON MOTION by Brad Steed and seconded by Ruoyi Wu, the committee voted unanimously to approve the modification of Music – Commercial Music.

ON MOTION by Katie Datko and seconded by Walter Butler, the committee voted unanimously to approve the modification of Television and Radio – Radio Production.

ON MOTION by Karyn Skiathitis and seconded by Charlotte Williams, the committee voted unanimously to approve the modification of the families of courses in PCA.

ON MOTION by Katie Datko and seconded by Karyn Skiathitis, the committee voted unanimously to approve the addition of the discipline of CINE (Cinema).
The CIS – Operations certificate, TVR 109, and the revised “TBA” statement in catalog descriptions were pulled from the agenda.

V. COMMITTEE DISCUSSION

None.

VI. ANNOUNCEMENTS

None.

VII. ADJOURNMENT

ON MOTION by Michael Cranfill and seconded by Jeff Hupp, the meeting adjourned at 4:13 p.m.
ADDENDUM

DIVISION OF BUSINESS

MODIFICATION – Title, SLO, SPO, content, MOI, MOE, assignments, catalog description (contact hours from 90 lec to 54 lec/18 lab), texts, top code – Effective Summer 2017

CIS 030  FUNDAMENTALS OF COMPUTER NETWORKS
3 units
Introduction to network applications, fundamental communication concepts, data communication hardware, protocols and software, microcomputers and communications; network configurations, management and security. Total of 54 hours lecture and 18 hours laboratory. Transfer Credit: CSU

Rationale: To bring the content up to date with the current state of the industry, including partial preparation for the CompTIA Network+ Certificate. This course is a prerequisite course for the Security Certificate of Achievement.

MODIFICATION – SLOs, SPOs, assignments, catalog description, update Distance Education – Effective Summer 2017

CIS 062  INTRODUCTION TO SYSTEMS ANALYSIS
3 units
Prerequisites: CIS 010.
Information systems and the discipline of systems analysis to analyze solutions to a variety of realistic IT problems. Develops skills in applying the tools, techniques, and concepts of systems analysis to information systems development in order to identify and apply constraints to determine feasibility. Apply criteria to select the best information technology solution from alternatives. Total of 54 hours lecture.
Transfer Credit: CSU

Rationale: Update SLOs, SPOs, add EMP#s, and add assignments. Modification of catalog description, and the addition of an up-to-date Distance Learning form. Match CCOs to C-ID descriptor.

DIVISION OF ENGINEERING & TECHNOLOGY

MODIFICATIONS – Effective Summer 2017

AUTOMOTIVE TECHNOLOGY – AIR CONDITIONING TECHNICIAN – Occupational Skills Certificate
14 Units
The curriculum prepares the student for entry-level employment in automotive air conditioning repair or as preparation for master technician status. Students will receive instruction and hands-on experience in servicing, repair and diagnosis of automotive air conditioning systems. The Refrigerant Handlers Certification Examination given by International Mobile Air Conditioning Society (IMAC) is included in this training. The use of precision equipment and specialty tools is emphasized. Students are encouraged to take the Automotive Service Excellence (ASE) Exam for Heating and Air Conditioning (A7).

This program has lab fees, uniform and DMV requirements. Please inquire with Division on those course preparations. This curriculum is National Technicians Education Foundation (NATEF) approved and renewed in 2016.

An Occupational Skills Certificate is awarded upon completion of all required courses with a grade of C or better.
Required Courses
AUTO 200 - Automotive Fundamentals for Technicians (4)
ELTN 130 - Introduction to Electronics (3)
AUTO 050 - Automotive Electrical Systems (3)
AUTO 215 - Automotive Air Conditioning (4)

Rationale: The lack of available courses needed (TECH 107A/ELTN 109B and ENGL 435) for the program has made this certificate difficult to achieve in a reasonable amount of time. The removal of the transferable AUTO 32 course with the majors non-transferable AUTO 200 course will provide the needed academic skills integration that technicians need to succeed in the program at all levels and in the field at the most basic level. The course changes from 2014/2015 are reflected in this 2016/2017 cycle. The certificates were not aligned with the course changes. Modification to catalog description. Title of program (from Auto Tech - Air Conditioning Technician to AUTOMOTIVE TECHNOLOGY - HEATING & AIR CONDITIONING TECHNICIAN to reflect the NATEF/ASE test title and certificate name.

AUTOMOTIVE TECHNOLOGY – ELECTRICAL/ELECTRONICS SYSTEMS – Occupational Skills Certificate
14 Units
The curriculum prepares the students for successful completion of the Electrical/Electronics Systems Certificate. The courses also provide a strong foundational electronics knowledge for completion in the All Automotive Systems Certificate. The electrical technology is expanding at an exponential rate, this certificate will create the base foundation for success at every job level. This certificate is also available to automotive professionals who wish to update and/or upgrade their knowledge in automotive electrical/electronic systems. Students will receive instruction and hands-on experience in proper diagnostic and service techniques used in automotive electrical/electronic systems. The use of precision measuring equipment and specialty tools are emphasized. Students are encouraged to take the Automotive Service Excellence (ASE) exam for electrical/electronic systems (A6).

This program has lab fees, uniform and DMV requirements. Please inquire with Division on those course preparations. This curriculum is National Technicians Education Foundation (NATEF) approved and renewed in 2016.
An Occupational Skills Certificate is awarded upon completion of all required courses with a grade of C or better.
Required Courses
AUTO 200 - Automotive Fundamentals for Technicians (4)
ELTN 130 - Introduction to Electronics (3)
AUTO 050 - Automotive Electrical Systems (3)
AUTO 151 - Automotive Electronics (4)

Recommended Electives
ELTY 012 - Basic Electricity-Electronics (Industrial Arts) (2)
ELTN 109B - Applied Mathematics for Electronics (3)

Rationale: The lack of available courses needed (TECH 107A/ELTN 109B and ENGL 435) for the program has made this certificate difficult to achieve in a reasonable amount of time. The removal of the transferable AUTO 32 course with the majors non-transferable AUTO 200 course will provide the needed academic skills integration that technicians need to succeed in the program at all levels and in the field at the most basic level.
DIVISION OF HEALTH SCIENCES

ADDITION – Effective Summer 2017
ELDER CARE – Occupational Skills Certificate
12 units
The Occupational Skills Certificate in Elder Care provides geriatrics and gerontology education and training for entry level health care professionals. Persons completing this certificate program are prepared to provide specialized, quality care for older adults. This certificate program is offered to students who are currently enrolled in the PCC Registered Nursing Program course NURS 050 or higher or the equivalent foundational nursing courses at other colleges or students who have graduated from the PCC Registered Nursing Program. Transcript reflecting equivalent courses with a grade of C or better is required.

An Occupational Skills Certificate is awarded upon completion of all required courses with a grade of C or better.

Required Units in the Major: 12

Required Courses
GERO 001 – Introduction to Gerontology (3)
NURS 050 – Foundational Nursing Care (3)
NURS 050L – Foundational Nursing Care – Clinical (5)
NURS 050S – Foundational Nursing – Seminar (1)

Rationale: The need for health care professionals and nurses in particular to have additional curriculum in care of older adults is increasingly required as the population ages. The patient population reflects the aging demographic imperative. PCC graduates with this certificate will have greater employment opportunities and will be more attractive to employers. Additionally, all required courses are CSU transferable

MODIFICATION – Course changes (N52 was divided into N52A, N42, N42L; deleting N52 – Effective Summer 2017
NURSING - LICENSED VOCATIONAL NURSE TO REGISTERED NURSE - Associate Degree
20 units
I. General admissions requirements for the Registered Nursing and Vocational Nursing Programs:

1. The student must formally apply to the college and is encouraged to make an appointment to see a counselor before enrolling in nursing prerequisite courses.

2. The student must be a United States high school graduate or have a G.E.D. or equivalent.

3. The student must have and maintain a current American Heart Association (AHA) CPR/Basic Life Support Card for health care providers while in a nursing program.

4. Students who have completed previous college nursing course work and are requesting advanced placement must provide transcripts, a copy of course syllabi and/or catalog descriptions and a letter of clinical safety signed by previous Nursing Division Dean/Director. A petition for advanced placement must be filed in Student Services. If the petition is approved, an examination in theory and lab skills may be administered. A grade of C or better must be achieved on this examination.

II. Other Requirements
1. Admission to and continuation in a nursing program requires the student to maintain a grade of C or better in all required nursing courses (prerequisites, requisites, and corequisites).
2. Once accepted into a nursing program, the student is required to submit evidence of good health documented by a recent physical examination (within the last year), with the required immunizations.
3. Students are expected to comply with the division's clinical uniform standards.
4. Students must provide their own transportation to all on- and off-campus clinical sites. Assignments are scheduled between the hours of 6:30 a.m. and 11:30 p.m., daily.
5. Each theory course has two corequisites, a seminar course and a laboratory course, that must be taken concurrently with the theory course.
6. Nursing students must have the ability to communicate effectively. To enhance success in a nursing program, students who have English as a second or third language are encouraged to enroll in SPEECH 3, 10 and MA 115.
7. The California Board of Registered Nursing and the California Board of Vocational Nurses and Psychiatric Technician Examiners are required to protect the public by screening applicants for licensure to identify potentially unsafe practitioners. The law provides for denial of licensure for crimes or acts which are related to nursing qualifications, functions and/or duties. Program applicants who have questions related to eligibility for licensure may contact the Health Sciences Division for referral to the appropriate licensing board.

III. Selection of Students:

ALL ELIGIBLE APPLICANTS WHO MEET THE ABOVE REQUIREMENTS AND COURSE PREREQUISITES WILL BE SELECTED ACCORDING TO THE FOLLOWING CRITERIA:

CAREER LADDER - LVN TO REGISTERED NURSING ASSOCIATE OF SCIENCE DEGREE
1. Completion of all prerequisites and general education requirements.
2. Completion of all life sciences courses. The Division of Health Sciences will inform RN, LVN to RN, LVN and approved CNA candidates of the results by mail approximately six (6) weeks after the application deadline. The Licensed Vocational Nurse to Registered Nurse Associate of Science curriculum provides the student with the theory and skills to seek employment in hospitals, clinics, private physician offices, and skilled nursing in extended and long-term care facilities as Registered Nurses in California. There are limitations with this license as it is not accepted in all states.
Emphasis is on building nursing theory and re-enforcing concepts to promote, maintain and restore health in individuals with common and complex health problems throughout the life span. Additionally the development and application of nursing skills and concepts utilizing the nursing process in the care of these individuals is emphasized.
The Licensed Vocational Nurse to Registered Nurse Associate of Science student will receive an Associate of Science degree and a certificate of achievement and will be eligible to take the National Council Licensing Examination-Registered Nurse (NCLEX-RN) and if successful will qualify to receive a license from the Board of Registered Nursing to practice nursing in the State of California.

A grade of C or better in all program course work is required to meet the California Board of Registered Nursing regulations.

The PCC Nursing Program's outcomes reflect standards of competency as delineated by the California State Boards of Nursing and the Department of Health Services.

Licensed Vocational Nurse to Registered Nurse Curriculum
Effective: 2017-2018

Required sequence must be followed:

NURS 210
NURS 42 / NURS 42L
NURS 52A/ NURS 52L
NURS 52S concurrent with 52/52L and 42/42L
NURS 53/ NURS 53L
NURS 53S
Prerequisites:
ENG 001A
PYSO 001
ANAT 025
MICR 002
MATH 402 or higher
The PCC Nursing Program's outcomes reflect standards of competency as delineated by the California State Boards of Nursing and the Department of Health Services. English, Humanities, Political Science, US History or American Institutions 125, PE, Critical Thinking are Associate in Science Degree requirements for Pasadena City College. It is recommended that the student complete as many of the aforementioned non-nursing courses prior to starting the LVN to RN Program.

Required Courses
Transition
NURS 210 - Nursing Role Transition (2)

Psychiatric Mental Health Nursing
NURS 042 - Psychiatric Mental Health Nursing (1)
NURS 042L - Psychiatric Mental Health Nursing Lab (1.5)

Intermediate Medical Surgical Nursing
NURS 052A - Intermediate Medical Surgical Nursing (2)
NURS 052L - Intermediate Medical Surgical Nursing Lab (3.5)
NURS 052S - Intermediate Nursing Care - Seminar (1)

Advanced Medical Surgical Nursing
NURS 053 - Advanced Medical-Surgical Nursing (3)
NURS 053L - Advanced Medical-Surgical Nursing - Clinical (5)
NURS 053S - Advanced Nursing Seminar (1)

Required Electives

Required Non Nursing Courses:
NUTR 011 - Human Nutrition (3)
PSYC 024 - Lifespan Developmental Psychology (3)
SPCH 010 - Interpersonal Communication (3)
SOC 001 - Introductory Sociology (3)

Recommended Electives
NURS 202 - Basic Clinical Skills (3)
NURS 211 - Basic Cardiac Dysrhythmias (1)
NURS 213 - Intravenous Therapy and Blood Withdrawal (1)
ANAT 110 - Dissection Anatomy (2)
CHEM 002A - Chemistry - General, Organic and Biochemistry (4)
NURS 139 - Intermediate Clinical Pharmacology (2)
Rationale: In 2014, the Department of Nursing modified its curriculum for second and third semester to divide the specialties into separate courses. During this process, the third semester course N52 was divided into N52A, N42, and N42L. This program was not modified to reflect this change. We are deleting N52 and therefore must modify this program. Additionally, the program outcomes, texts, and electives have been changed or added.

DIVISION OF MATHEMATICS

MODIFICATION – Title, SLOs, SPOs, content, catalog description, contact hours (90 hrs lecture, 54 hrs lab to 54 hrs lecture, 27 hrs lab), units (5 to 3.5) – Effective Summer 2017

MATH 038 FOUNDATIONS OF ELEMENTARY SCHOOL MATHEMATICS: BASIC NUMBER CONCEPTS
3.5 units
Prerequisite: Math 131 or Math 150; or placement based on the Math assessment process.
This course uses problem-solving strategies and quantitative reasoning to develop skills and explore topics in numeration systems and the real number system. Designed for prospective elementary and middle school teachers. Total of 54 lecture hours and 27 lab hours.
Transfer Credit: CSU; UC

Rationale: This course modification removes the geometry, statistics, and probability content of the original Math 38 course while retaining the basic numbers content. This modified course aligns with the content for C-ID Math 120 and will fulfill the math requirement for the AA-T in Elementary Education.

DIVISION OF NATURAL SCIENCES

ADDITION – Effective Summer 2017

BIOL 110 INTRODUCTION TO BIOTECHNOLOGY
3 units
Research in the biotechnology industry and in academic research laboratories. Includes lectures on fundamentals of biotechnology combined with laboratory experiences to demonstrate research techniques, allowing an opportunity to explore various career pathways in the field of modern biotechnology. Total of 36 hours lecture and 72 hours laboratory.

Rationale: Courses that are part of the Biotechnology Program curriculum are designed to prepare students to work primarily in the biotechnology industry and in academic research laboratories. The proposed course will provide an introduction to the field of modern biotechnology and an overview of the different areas of research performed in biotechnology laboratories that utilize applied biological technologies. A series of laboratory exercises will incorporate techniques taught in the existing biotechnology courses and include representative procedures from many disciplines of biology (e.g., cell and molecular biology, microbiology, biochemistry, immunology, bioinformatics and computational biology) to provide a laboratory experience that reflects the interdisciplinary nature of biotechnology-related research. In addition, the course will provide a survey of potential employment opportunities and career pathways available in the biotech industry and in academia. The introductory biotechnology course will help students decide if participation in the Biotechnology Program will assist them in achieving their educational and career goals.

MODIFICATION – Title, SLOs, SPOs, recommended preparation – Effective Summer 2017

ANAT 025 HUMAN ANATOMY
4 units
Recommended Preparation: Completion of any college-level (1-99) course in the Natural Sciences.
Study of structural organization of the human body from cellular to organ system level of organization. Gross and microscopic anatomy of the integumentary, skeletal, muscular, nervous, sensory, endocrine, cardiovascular, lymphatic, respiratory, digestive, excretory, and reproductive systems of the human body. Total of 36 hours lecture and 108 hours laboratory. Transfer Credit: CSU; UC. *C-ID: BIOL 110B

Rationale: Purposes of this proposal include rewriting the SLO's, realigning corresponding SPO's with their SLO's, changing the course title from General Human Anatomy to Human Anatomy, and changing the recommended preparation.

MODIFICATION – SLOs, SPOs, content, MOIs, MOEs, removal of prerequisite, addition of recommended preparation, assignment, units (2 to 1) – Effective Summer 2017

ASTR 020 INDEPENDENT STUDY
1 unit
Recommended Preparation: Enrollment in or completion of any college-level (1-99) course in the Natural Sciences.
Enrollment Limitation: Permission of Dean.
Faculty-guided independent study of a topic in Astronomy. Total of 54 hours laboratory.
Transfer Credit: CSU; UC credit limitations. See counselor.

Rationale: This proposal updates and brings into alignment all independent study courses in the Natural Sciences Area; updates SLO's and makes them more uniform and accessible across disciplines. Modification to SPOs, CCOs, MOIs, MOEs, assignment, removal of prereq (Astr 001).

MODIFICATION – SLOs, SPOs, MOIs, MOEs, assignment, catalog description, removal of prerequisite, units (from 2 to 1) Effective Summer 2017

BIOL 020 INDEPENDENT STUDY
1 unit
Recommended Preparation: Enrollment in or completion of any college level (1-99) course in the Natural Sciences.
Enrollment Limitations: Permission of the Dean.
Independent, faculty-guided student inquiry, project, research, laboratory experiment and/or field investigation. Total of 54 hours laboratory.
Transfer Credit: CSU; UC limitations. See counselor.

Rationale: This proposal updates and brings into alignment all independent study courses in the Natural Sciences Area; updates SLO's and makes them more uniform and assessable across disciplines.

MODIFICATION – SLOs, SPOs, MOEs, content, catalog description, prerequisite – Effective Summer 2017

BIOL 102A BIOLOGICAL TECHNOLOGY – BASIC TECHNIQUES
3 units
Prerequisite: Biol 110.
Introduction to the fundamental skills and competencies necessary for working in a biotechnology laboratory. Basic skills include use and maintenance of standard laboratory equipment, solution and reagent preparation, sterile technique, quality control protocols, basic cloning procedures, production of an industry standard notebook, and laboratory safety. Course is taught in a laboratory setting allowing students to develop workplace competencies. Total of 36 hours lecture and 72 hours laboratory.

Rationale: Courses that are part of the Biological Technology Program core curriculum are designed to prepare students to work in the biotechnology industry by providing training in basic and advanced laboratory
techniques. In order to prepare CTE students for careers in real-world working laboratories, it is important to train the students to perform techniques currently being performed in biotechnology research laboratories and to offer this training in a laboratory environment to allow students to develop workplace competencies. The proposal for the BIOL 102A Biological Technology – Basic Techniques course provides updated information on the following: the course description, SLOs, SPOs, CCOs, and MOEs.

MODIFICATION – SLOs, SPOs, MOIs, MOEs, assignments, prerequisite – Effective Summer 2017

**CHEM 020 INDEPENDENT STUDY**
1 unit
**Recommended Preparation:** Enrollment in or completion of any college-level (1-99) course in the Natural Sciences.
**Enrollment Limitations:** Permission of the Dean
Independent, faculty-guided student inquiry, project, research, laboratory experiment and/or field investigation. Total of 54 hours laboratory.
*Transfer Credit: CSU; UC limitations. See counselor.*

**Rationale:** This proposal updates and brings into alignment all independent study courses in the Natural Sciences Area; updates SLO's and makes them more uniform and assessable across disciplines. Sections Changed: SLOs, SPOs, Methods of Instruction, Methods of Evaluation, Assignments, Prerequisite

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**CHEM 020 INDEPENDENT STUDY**
1 unit
**Recommended Preparation:** Enrollment in or completion of any college-level (1-99) course in the Natural Sciences.
**Enrollment Limitations:** Permission of the Dean
Independent, faculty-guided student inquiry, project, research, laboratory experiment and/or field investigation. Total of 54 hours laboratory.
*Transfer Credit: CSU; UC limitations. See counselor.*

**Rationale:** This proposal updates and brings into alignment all independent study courses in the Natural Sciences Area; updates SLO's and makes them more uniform and assessable across disciplines.

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**MODIFICATION – SLOs, SPOs, MOIs, MOEs, assignments, removal of prerequisite – Effective Summer 2017**

**ENVS 020 INDEPENDENT STUDY**
1 unit
**Recommended Preparation:** Enrollment in or completion of any college-level (1-99) course in the Natural Sciences.
**Enrollment Limitations:** Permission of the Dean.
Independent, faculty-guided student inquiry, project, research, laboratory experiment and/or field investigation. Total of 54 hours laboratory.
*Transfer Credit: CSU; UC limitations. See counselor.*

**Rationale:** This proposal updates and brings into alignment all independent study courses in the Natural Sciences Area; updates SLO's and makes them more uniform and assessable across disciplines:

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**MODIFICATION – SLOs, SPOs, MOIs, MOEs, assignments, removal of prerequisite – Effective Summer 2017**

**GEOG 020 INDEPENDENT STUDY**
1 unit
**Recommended Preparation:** Enrollment in or completion of any college-level (1-99) course in the Natural Sciences.
**Enrollment Limitations:** Permission of the Dean.
Independent, faculty-guided student inquiry, project, research, laboratory experiment and/or field investigation. Total of 54 hours laboratory.
*Transfer Credit: CSU; UC limitations. See counselor*

**Rationale:** This proposal updates and brings into alignment all independent study courses in the Natural Sciences Area; updates SLO's and makes them more uniform and accessible across disciplines. (The following sections updated: EMP, SLO, SPO, Methods of Instruction, Evaluation, Assignments, Catalog description, Prerequisite, Recommended Preparation, Representative textbooks.)
MODIFICATION – SLOs, SPOs, content, MOIs, catalog description, assignments – Effective Summer 2017

GEOL 020  INDEPENDENT STUDY
1 unit
Recommended Preparation: Enrollment in or completion of any college-level (1-99) course in the Natural Sciences.
Enrollment Limitations: Permission of the Dean
Faculty-guided student research; laboratory experiments and field investigations. Total of 54 hours laboratory.
Transfer Credit: CSU; UC credit limitations. See counselor

Rationale: This proposal updates and brings into alignment all independent study courses in the Natural Sciences Area; updates SLO's and makes them more uniform and assessable across disciplines. Specifically:
1. Course SLOs have been revised.
2. Course SPOs have been revised to be in alignment with other independent study courses and to correct prior typos.
3. SPOs have been aligned with Course SLOs.
4. CCOs have been slightly modified for clarity.
5. Methods of instruction have been added.
6. Sample assignments have been added.
7. Catalog description has been modified to be in alignment with other independent study courses in Natural Sciences; this description now allows for a wider range of types of projects.

DIVISION OF PERFORMING AND COMMUNICATION ARTS

ADDITION – Effective Summer 2017
MUSIC ENTREPRENEURSHIP – Certificate of Achievement
33-35 units
The Music Entrepreneurship Certificate at PCC is designed to embolden music students towards successful and sustainable careers in a rapidly changing artistic and business climate. In this program, students gain a portfolio of practical business-oriented skills as well as skills critical to the current musician like audio and video editing, effective music notation, concert or recital planning and the management of teaching studios. The program also develops entrepreneurial, creative, and collaborative skills, and can be completed on its own or in conjunction with a traditional music degree. A Certificate of Achievement is awarded upon completion of all required courses with a grade of C or better.

Required Courses

Required Core – 11
MUSC001A – Music Theory I (3)
MUSC002A – Musicianship I (1)
MUSC094 – Intro to Music Technology for Musicians (3)
MUSC093A – Introduction to the Music Business and Entrepreneurship (2)
MUSC099 – Music Entrepreneurship Practicum (2)

Additional Requirements – 4-6 Units
MUSC001B – Music Theory II (3)
MUSC002B – Musicianship II (1)
or MUSC036A – Pop-Jazz Theory (3)
or MUSC093B – The Music Business (2)

Required Electives (Minimum 18 Units)
ART 098 – Web Design and Development (3)
BUS 002 – Personal Finance (3)
BUS 116 – Small Business Management (3)
EDUC 030 – Teaching as a Profession (3)
MODIFICATION – Units (from 1 to 2), SLOs, SPOs, content, catalog description, assignment, remove recommended prep, text – Effective Summer 2017

MUSC 071A  VOICE TECHNIQUES I
2 units
Exploration of the fundamentals of vocal technique and singing for the beginning voice student. Posture, breath management, tone resonance, registration. Class singing and solo singing from basic text and supplementary materials. Total of 36 hours lecture and 18 hours music laboratory. This course may be scheduled using the “To Be Arranged” (TBA) scheduling format.
Transfer Credit: CSU; UC

Rationale: Change to 2 units from 1 unit. Removed recommended in MUSC 102 Updated MOIs, MOE, Assignments, Updated SLOs and SPOs, CCOs, Textbook, Catalogue description, facilities, equipment.

MODIFICATION – Title, units (from 1 to 2), SLOs, SPOs, content, MOIs, MOEs, assignment, catalog description, max class size, text – Effective Summer 2017

MUSC 071B  VOICE TECHNIQUES II
2 units
Prerequisite: Musc 071A or retention based on successful audition.
Continuing development of the fundamentals of vocal technique and singing for the second semester beginning voice student. Solo singing from basic text and supplementary materials. Total of 36 hours lecture and 18 hours music laboratory. This course may be scheduled using the “To Be Arranged” (TBA) scheduling format.
Transfer Credit: CSU; UC

Rationale: Change to 2 units (from 1 unit). Updated MOIs, MOEs, Assignments, SLOs, SPOs, CCOs, Catalog Description, Max. class size, Textbook, facilities, resources, Title Change – level II.

MODIFICATION – Units (from 2 to 1), SLOs, SPOs, content, MOIs, MOEs, assignment – Effective Summer 2017
MUSC 072  SECOND YEAR VOICE TECHNIQUES
2 units
Prerequisite: Musc 071B or audition.
Further development of voice techniques, posture, breath control, tone resonance, vowel placement, registration. Emphasis on performance in class of vocal literature, including folk songs, musical theater, religious songs and elementary art songs. Materials adapted to individual needs. Total of 36 hours lecture and 18 hours music laboratory. This course may be scheduled using the “To Be Arranged” (TBA) scheduling format.

*Transfer Credit: CSU; UC*

**Rationale:** Change to 2 units, SLOs, SPOs, CCOs, MOIs, MOEs, assignments, facilities, resources.

**MODIFICATION – Units (from 3 to 3.5), SLOs, SPOs, content, MOIs, MOEs, assignment, catalog description – Effective Summer 2017**

**MUSC 096A  INTRODUCTION TO MUSIC RECORDING AND PRODUCTION**

3.5 units

**Prerequisite:** One of the following: Musc 001A, 040, 041A or placement based on the music assessment process.

Introduction to computer music production. Use of MIDI (Musical Instrumental Digital Interface), methods of triggering MIDI (controllers, sequencers etc.), samplers and synthesizers, digital audio recording, signal processing. Aesthetic principles of music production. Total of 54 hours lecture and 36 hours laboratory.

*Transfer Credit: CSU*

**Rationale:** Course updated for recency. Modification of SLOs, SPOs align, CCOs, addition of MOIs, MOEs, modification of assignment, catalog description, units (from 3.0 to 3.5).

**MODIFICATION – Units (from 3 to 3.5), SLOs, SPOs, content, MOIs, MOEs – Effective Summer 2017**

**MUSC 096B  MUSIC RECORDING AND PRODUCTION APPLICATIONS**

3.5 units

**Prerequisite:** Musc 096A.

Production of music projects using modern recording techniques. Utilization of microphones and preamps, hardware and virtual mixers, outboard plug-in effects, and other associated digital audio workstation components. Music production values are studied through analytical listening. Total of 54 hours lecture and 36 hours laboratory.

*Transfer Credit: CSU*

**Rationale:** Course updated for currency. Modification of SLOs, align/modify SPOs, addition of MOIs, MOEs, change of units (from 3.0 to 3.5).

**MODIFICATION – Units (from 3 to 3.5), SLOs, SPOs, content, MOIs, MOEs, TOP code – Effective Summer 2017**

**MUSC 096C  MUSIC RECORDING & PRODUCTION WORKSHOP**

3.5 units

**Prerequisite:** Musc 096A.

Strategies for mixing pre-recorded, multi-track music. Critical listening, musical aesthetics of recorded music. Room acoustics for critical listening. Extensive use of equalizers, dynamics and time-based effects. Advanced signal routing. Extensive hands-on projects. Total 54 hours lecture and 36 hours laboratory.

*Transfer credit: CSU*

**Rationale:** Updated for currency. Modifications to SLOs, aligned SPOs, addition of MOIs, MOEs, modification of units (from 3.0 to 3.5). TOP code change from music to commercial music.
MODIFICATION – Course unit changes; no effect on total units – Effective Summer 2017
MUSIC – COMMERCIAL MUSIC
16.5 units
The Commercial Music Occupational Skills Certificate prepares students for employment in a variety of commercial music and music production settings such as sound designer assistant, sound editor assistant, automation dialogue replacement assistant and sound recordists. They will gain skills in applying musical skills in audio production, audio signal flow, using recording equipment, signal processing and audio editing and post-production.

An Occupational Skills Certificate is awarded upon completion of all courses with a grade of C or better.

Prerequisite: One of the following: Musc 001A, 004A, 040 or 041A.

Required Units in the Major: 16.5

MUSC 096A – Introduction to Music Recording and Production (3.5)
MUSC 096B – Music Recording and Production Applications (3.5)
MUSC 096C – Music Recording & Production Workshop (3.5)
MUSC 093A – Introduction to the Music Business and Entrepreneurship (2)

Required Electives 4 Units from the following:
MUSC 034A – Jazz Keyboard Skills (2)
MUSC 034B – Advanced Jazz Keyboard Skills (2)
MUSC 036A – Pop-Jazz Theory (3)
MUSC 036B – Jazz-Commercial Theory (3)
MUSC 041A – First Year Piano (2)
MUSC 071A – Voice Techniques (1)
MUSC 083A – Beginning Guitar (1)
MUSC 105 – Popular Songwriting (3)
MUSC 112A – Electric Bass Techniques (2)
MUSC 112B – Electric Bass Repertoire (2)
MUSC 115 – Contemporary Guitar Techniques (1)
MUSC 116 – Drum Set Techniques (1)
MUSC 117 – Rhythm Section Techniques (2)
MUSC 121 – Latin Percussion Techniques (2)
MUSC 144 – Introduction to Improvisation (1)
MUSC 171A – Techniques of Popular Singing (2)
MUSC 171B – Techniques of Popular Singing (2)
MUSC 171C – Vocal Jazz Performance Techniques (1)

Rationale: This certificate modification is submitted for the sole purpose of bringing it up to date with proposed changes to courses within the program. MUSC 096A, MUSC 096B and MUSC 096C have all been updated from 3 to 3.5 units to bring them into compliance with unit/hour standards. The additional 1.5 units in these mandatory courses means that the required electives must be reduced from 6 to 4 units to keep the total units of the Certificate Program under 18 total units as it has been. The required course MUSC 093 has been updated to MUSC 093A to reflect the proposed changes in the Music Business classes.
SPSV 101 SPEECH-LANGUAGE LAB
1 unit
Understanding and correction of one's speech, language and communication disorders. Designed for students with disabilities who are recommended by Special Services, including Disabled Students Programs and Services (DSPS). Pass/no pass grading. **No credit** if taken after SPCH 120. Total of 54 hours laboratory. **Formerly** SPCH 120.

**Rationale:** To replace Spch 120 with a course that is more clearly designated as one for students with disabilities. Update minimum qualifications, catalog description, SLOs, SPOs, CCO. It will be beneficial for students with verified disabilities to be able to repeat this Educational Assistance Course. According to CCR 55040, Section b; item 7: “permit a student with a disability to repeat a special class for students with disabilities any number of times based on an individualized determination that such repetition is required as a disability-related accommodation for that particular student for one of the reason specified in section 56029.”

“Section 56029 requires Districts to develop policies and procedures allowing students with disabilities to enroll again in special classes in any of three circumstances:
1) the student’s success in other classes (general and/or special) is dependent upon additional repetition of the special class,
2) the student’s need to enroll again in the specific special class to be prepared for enrollment in other regular or special classes, or,
3) the student’s educational contract specifies a goal in which additional enrollments in the special class will help further that goal. The goal must be a goal other than completion of the special class in question.”

TVR – RADIO PRODUCTION – Certificate of Achievement
32-35 units
Radio Production curriculum prepares students to work in various areas of broadcasting and electronic media. Course work covers basic aspects of radio production, audio production, post-production sound, and announcing and writing for broadcast, cable and digital media. Practical internships are offered in professional facilities, including commercial and public broadcast companies, cable television, production and post-production companies. Students selecting the “Radio” track of this program will produce a weekly show for the college radio station. Radio Production students are prepared for such positions as radio hosts/announcers, news reporters, production assistants, program producers, and audio editors for radio. Some occupations within the industry of radio production and operations are inherently competitive. Students are encouraged to utilize college audio/radio facilities above and beyond coursework to better insure their marketability.

A Certificate of Achievement is awarded upon completion of all required courses with a grade of C or better.

**Required Units in the Major: 32-35**

Year 1, Semester 1 – Fall
TVR 002A – Beginning Audio Production (3)
TVR 012 – Beginning Announcing and Performing In Electronic Media (3)
TVR 014A – Beginning Radio Production (3)

Year 1, Semester 2 – Spring
TVR 002B – Radio Broadcast Master Control Operations (3)
TVR 014B – Advanced Radio Production (3)
TVR 015 – Introduction to Media Writing (3)
Year 2, Semester 3 – Fall
TVR 001 – Introduction to Electronic Media (3)
TVR 004 – Beginning Single Camera Production (3)
    or TVR 007 – Beginning TV Studio Production (3)
Comm 101 – Communication Field Practice (1)

Year 2 – Winter
TVR 117 – Telecommunications Workshop (1)
    or TVR 119 – Radio Workshop (3)

YEAR 2 – Summer
TVR 120 – Radio Workshop (2)

YEAR 2 – Fall
TVR 128B – Radio Operations Internship (1)
    or TVR 128F – Radio Production Internship (1)
    or TVR 129B – Radio Operations Internship (2)
    or TVR 129F – Radio Production Internship (2)

Required Electives
Choose one of the following electives (3 units)
MUSC 129A – Music in Multimedia (3)
TVR 104 – Live Sound Reinforcement (3)
TVR 143 – Digital Audio Workstation Skills (3)

Recommended Electives
ELTN 130 – Introduction to Electronics (3)

Rationale: When making changes to this Certificate in 2015, a mistake was made, and we neglected to include a key advanced radio class (TVR 014B). Additionally, we are removing CIS 030.

DIVISION OF SOCIAL SCIENCES

MODIFICATION – Effective Summer 2017
EDUC 013 INTRODUCTION TO ELEMENTARY CLASSROOM TEACHING
3 units
Introduce students to the concepts and issues related to teaching diverse learners in today's contemporary schools, Kindergarten through grade 12 (K-12). Topics include teaching as a profession and career, historical and philosophical foundations of the American education system, contemporary educational issues, California's content standards and frameworks, and teacher performance standards. In addition to class time, the course requires 54 hours structured field practice in public school elementary classrooms that represent California's diverse student population, and includes cooperation with at least one carefully selected and campus-approved certificated classroom teacher. Total of 36 hours lecture and 54 hours of laboratory.
Transfer Credit: CSU; UC

Rationale: The course has been modified in the following areas: Course title (from Teacher Preparation Foundations and Field Experience), SLO's, SPO's, Catalog Description, MOI's, MOE's, CCO's, Assignments, and Textbooks. This course is also being modified in order to develop an AA-T in Elementary Teacher Education and to become C-ID aligned.
ADDITION – Effective Summer 2017
ART 081 GAME DESIGN WITH GAME ENGINES
3 units
Prerequisites: ART 080 or portfolio of intermediate computer skills with experience in computer graphics or digital video or music.
Provides students with intermediate skills in video game design and development using a 2D and 3D game engine. Students create projects for 2D, 3D and in virtual reality. Utilizing a design sequence that involves brainstorming techniques, team work, game design documents, prototyping and playtesting, students develop a knowledge of project management for an efficient and effective game design workflow. Topics include game rules, balance, complexity, randomness, narrative, player interaction, aesthetics and world building. Course includes basic scripting skills for game development. Course instruction utilizes workshops, lectures, class presentations and readings. Total of 36 hours lecture and 72 hours laboratory.
Transfer Credit: CSU; UC credit under review.

Rationale: This is a follow-up course to the Foundation in Interactive Game Design (ART 080) course. It supports students who are in the animation, game design or interaction design programs. This is an introduction to the world of game design using a game engine. Students will learn the basics of game design with the Unity 3D game engine including virtual reality using Google Cardboard. Students will continue to learn the intermediate skills in game design methodologies, including brainstorming, playtesting, research, visual design and the history of gaming. Students will also gain a basic introduction to scripting game assets in Unity. Interdisciplinary in nature, game design helps students achieve the creative and technical requirements to access a vibrant and growing field of employment possibilities. This course would prepare students for an optional professional certification in Unity.
Courses like this can help students pursue the goal of producing games from the perspective of a designer with the added value of coding knowledge. Coding is offered in the art departments of universities around the world and the connection between art and code is one that spans from the 1950’s on. Our course arrives at game design from an artistic perspective, but provides a growth mindset attitude allowing students to delve into coding who might not otherwise have access to courses like this. We also believe this will lead to more cross-disciplinary exchange between Art, CIS and CS, allowing students with different skillsets to form teams to produce innovative works. While models for art curricula with integrated coding programs exist worldwide, two renowned public programs specific to California are UCLA’s Design Media Arts and San Jose State’s CADRE Digital Media Lab.

DIGITAL MEDIA – INTERACTIVE ART AND DESIGN – Certificate of Achievement
21 units
This curriculum prepares students with entry-level skills in interactive forms of art and design to seek employment in a variety of fields including web design, interaction design, graphic design, game design, creative technology, entertainment, and mobile apps. Students learn industry standard skills and apply them using professional project management workflows. Projects employ effective communication strategies using visual and cinematic language. Emphasis on independent practices and creative leadership. Students completing this program will develop an online portfolio and participate in an advanced team project. Students can select courses from any of the recommended groups. They are provided as guidelines. All courses in this certificate require literacy and proficiency in writing and math. Projects require written, oral, and visual presentations as well as the application of basic math principles and skills.
A Certificate of Achievement is awarded upon completion of all required courses with a grade of C or better.

Required Units in the Major: 21
Required Courses
ART 056 - Introduction to Digital Painting and Drawing (3)
ART 057 - Motion Graphics (3)
  or ART 155A - 3-D Modeling and Sculpting (3)
ART 070 - Principles of Animation (3)
ART 180 - Digital Media Incubator (3)

Options for Web Design/Development Emphasis
ART 098 - Web Design and Development (3)
ART 064 - Introduction to Interaction Design (3)
ART 158 - Interactivity for the Internet (3)

Options for Interaction Design Emphasis
ART 063 - User Experience Design (UX) (3.5)
ART 064 - Introduction to Interaction Design (3)
ART 061 - Creative Coding for Mobile Devices (3)

Options for Game Design/Development Emphasis
ART 155B - 3-D Animation and Simulations (3)
ART 080 - Foundations of Interactive Game Design (3)
ART 081 - Game Design with Game Engines (3)

Options for Creative Coding Emphasis
ART 060 - Creative Coding (3)
ART 061 - Creative Coding for Mobile Devices (3)
ART 062 - Physical Computing for Art & Design (3)

Rationale: Interactive Art & Design is a high tech creative field that is growing in importance and offers the opportunity for students to engage with the latest in technology to succeed in a rapidly changing marketplace. This certificate is designed to feed directly into the growing tech sector in the Greater Los Angeles Area. In this certificate we not only acknowledge the rising importance of the STEMs, but we believe in the additional A in the growing STEAM movement that includes arts education with science and tech.

These skills are highly employable and interdisciplinary, which opens doors to new opportunities that students may not be aware of as they progress through the certificate. The most unique aspect of the certificate is its emphasis on coding and basic electronics skills for artists and designers. Community college art and design students in the region have not traditionally had access to a program that teaches them the coding and basic electronics skills to be competitive in the latest digital media jobs. These skills are essential for our students to be competitive in the growing high tech employment sector (Information & Communications Technology/Digital Media or ICT-DM). This sector is a priority sector for the state and is predicted to grow 5% by 2018 according to LMI data provided by PCC’s Office of Institutional Effectiveness. According to the Otis Report 8.4% of all jobs in the Greater Los Angeles Area are creative jobs and predicts growth for the sector:

“Over the period 2014 to 2019, wage and salary employment in Los Angeles County is expected to grow by 4.5% and in Orange County by 8.0%. However, the LAEDC projects creative industry employment will grow faster over that period in both counties. Creative employment is expected to increase by 7.0% in Los Angeles County from 360,300 wage and salary jobs in 2014 to 385,400 in 2019.” [2015 Otis Report.]

According to the Los Angeles Economic Development Corporation, a non-profit advocacy group, high tech jobs account for 9 percent of all employment and 17 percent of all payroll wages in the Los Angeles area. Wages are, on average, 70 percent higher in high tech jobs than in other industries.
MODIFICATION – Add Distance Education – Effective Summer 2017

ART 056  INTRODUCTION TO DIGITAL PAINTING AND DRAWING

3 units
Introduction to fundamental concepts, practices, and theories of digital art production. Topics include integration of traditional design, and compositional principles with contemporary digital tools. Total of 36 hours lecture and 72 hours laboratory.

Transfer Credit: CSU; UC *C-ID: ARTS 250

Rationale:  Adding form D for Distance Education