# EL CAMINO COLLEGE MINUTES OF THE COLLEGE CURRICULUM COMMITTEE March 27, 2018

#### **CALL TO ORDER**

Meeting called to order at 2:32 p.m. by Chair Young.

**Recorder**: C. Escutia

#### **Members:**

Present: M. Anderson, M. Chaban, R. Davis, R. Donegan, R. Ekimyan, D. Eldanaf,

E. French-Preston, L. Houske, J. Minei, R. Miranda, D. Roman, A. Sharp,

Absent: J. Shankweiler, C. Striepe

#### **Ex-Officio Members:**

Present: L. Clowers, A. Osanyinpeju, L. Plum, L. Suekawa,

Absent: I. Castro, L. Young

Guests: W. Cox, L. Linka

#### I. APPROVAL OF MINUTES

Minutes of March 13, 2018, were approved via email by the College Curriculum Committee on March 23, 2018.

#### II. CHAIR'S REPORT

College Curriculum Committee Chair – J. Young

Chair Young explained that the recommendation agreed to at the March 13, 2018 CCC meeting, to include an exemption from the 12-unit residency requirement for credit by exam courses when an articulation is in place, has been forwarded to the Ed Policies Committee of the Academic Senate. She will keep the committee apprised of the progress. Chair Young explained that articulation agreements being reviewed at today's meeting are part of the Consent Agenda. They appear on the consent agenda because department faculty and deans have already signed off on them and they relate to existing courses. During the week, L. Suekawa reminded us that articulation agreements must have corresponding credit by exam courses listed in the catalog. Chair Young received confirmation from department faculty that the courses are suitable for credit by exam status and that faculty will develop the appropriate exams for the courses. Once the articulation agreements have gone through the approval process, the courses will be included in the catalog addendum.

# III. CURRICULUM ADVISOR'S REPORT

Curriculum Advisor – L. Plum

L. Plum reported that the Code Alignment Project is steadily moving along in the process. The purpose of the project is to ensure that the reporting codes (TOP, CIP, SOC, and SAM) are accurate and appropriately assigned to our courses. These codes are used for funding and, if misaligned, could result in a loss of hundreds of thousands of dollars. Courses submitted as part of a pilot program will be reviewed April 6 by the state set-up committee for their recommendations. The future goal is to have all courses and programs reviewed and revised as necessary.

#### IV. CURRICULUM REVIEW

#### A. Full Course Review

The committee approved the following courses, which are ready for final action:

- 1. Air Conditioning and Refrigeration 31 (ACR 31)
- 2. Automotive Collision Repair/Painting 1D (ACRP 1D)
- 3. Automotive Collision Repair/Painting 2A (ACRP 2A)
- 4. Automotive Collision Repair/Painting 2C (ACRP 2C)
- 5. Cosmetology 10 (COSM 10)

# **B.** Consent Agenda Proposals

The committee approved the following courses, which are ready for final action:

- 1. Administration of Justice 190 (AJ 190)
- 2. Art 110 (ART 110)
- 3. Art 173 (ART 173)
- 4. Art 210 (ART 210)
- 5. Automotive Collision Repair/Painting 1A (ACRP 1A)
- 6. Automotive Collision Repair/Painting 1B (ACRP 1B)
- 7. Automotive Collision Repair/Painting 1C (ACRP 1C)
- 8. Automotive Collision Repair/Painting 2B (ACRP 2B)
- 9. Automotive Collision Repair/Painting 4A (ACRP 4A)
- 10. Automotive Collision Repair/Painting 4B (ACRP 4B)
- 11. Automotive Collision Repair/Painting 4C (ACRP 4C)
- 12. Automotive Collision Repair/Painting 4D (ACRP 4D)
- 13. Automotive Collision Repair/Painting 5A (ACRP 5A)
- 14. Automotive Collision Repair/Painting 5B (ACRP 5B)
- 15. Automotive Collision Repair/Painting 5C (ACRP 5C)
- 16. Automotive Collision Repair/Painting 5D (ACRP 5D)
- 17. Business 19 (BUS 19)
- 18. Business 21 (BUS 21)
- 19. Computer Science 3 (CSCI 3)
- 20. Construction Technology 180 (CTEC 180)
- 21. Electronics and Computer Hardware Technology 11 (ECHT 11)
- 22. Electronics and Computer Hardware Technology 22 (ECHT 22)
- 23. Electronics and Computer Hardware Technology 110 (ECHT 110)
- 24. Engineering Technology 12 (ETEC 12)
- 25. Engineering Technology 12A (ETEC 12A)
- 26. Engineering Technology 12B (ETEC 12B)
- 27. Music 152abcd (MUSI 152abcd)
- 28. Music 253abcd (MUSI 253abcd)

The committee approved the following articulation agreements, which are ready for final action:

- 1. Banning High School
- 2. Leuzinger High School
- 3. Port of Los Angeles High School
- 4. Project Lead the Way
- 5. Torrance Adult School

#### **CURRICULUM DISCUSSION**

#### A. Full Course Review

# **Industry & Technology Division**

Air Conditioning and Refrigeration 31 - HVAC Electronics was presented for CTE 2-year review. A few minor edits were made to punctuation to improve consistency.

Automotive Collision Repair/Painting 1D - Automotive Component Systems Analysis and Repair was presented for CTE 2-year review. Minor revisions were made to standardize the Outcomes and Objectives.

Automotive Collision Repair/Painting 2A - Basic Automotive Painting-Refinishing and Automotive Collision Repair/Painting 2C - Automotive Refinishing Applications were presented for CTE 2-year review.

Cosmetology 10 - Introduction to Cosmetology I was presented for CTE 2-year review. A question was asked if the lab sections of the Outline of Subject Matter need to suggest an activity. L. Suekawa answered that it just applies to the content.

There were no further questions or comments from the committee.

It was moved by M. Chaban to approve, M. Anderson, seconded. The motion carried.

# B. Consent Agenda Proposals

It was moved by A. Sharp, seconded by D. Roman, that the committee approve the consent agenda proposals, including the articulation agreements. The motion carried.

#### V. VICE PRESIDENT'S REPORT

Vice President of Academic Affairs – J. Shankweiler

No report.

#### VI. ANNOUNCEMENTS

- DigArc Demonstration: April 4; 10:00-11:30 a.m. in Library 202. An informational webinar will be available for those who are unable to attend the presentation on April 4. A suggestion was made to set-up an individual DigArc presentation for the CCC during college hour or at one of the CCC meetings.
- CCC Chair Election: M. Chaban announced that nominations are now open for the CCC chair election. Nominations will be accepted until April 24 and should be forwarded to L. Plum. Ballots will be available at the CCC meeting on May 8 and are due back on May 22. Announcement of the Chair-Elect will be made at the last CCC meeting on June 5.
- CCC Meeting #4: April 24, 2018 2:30-4:30 p.m., DE/Library 166

#### VII. ADJOURNMENT

Chair Young called for a motion to adjourn the meeting. M. Chaban moved to adjourn, A. Sharp seconded, and the motion carried. Meeting adjourned at 3:00 p.m.

#### EL CAMINO COLLEGE

# **COLLEGE CURRICULUM COMMITTEE**

#### March 27, 2018

# **Approved Curriculum Changes Proposed for 2019-2020**

# **Course Review**

- 1. Art 173 Introduction to Jewelry and Metalsmithing
- 2. Art 210 Drawing Fundamentals II
- 3. Music 152abcd Concert Choir
- 4. Music 253abcd Chorale

# Course Review; Change in Catalog Description

1. Art 110 - Drawing Fundamentals I

Current Status/Proposed Changes

This course is an introduction to the techniques, media, and concepts of drawing. Instruction is designed to foster observational, compositional, interpretive, and expressive proficiencies. Representative topics include observation, perception, and the drawing process; contour and line; value, volume, and light theory; composition and pictorial structure; and linear perspective. Also included is an introduction to color theory.

#### Recommendation

This course is an introduction to the techniques, media, and concepts of drawing. Instruction is designed to foster observational, compositional, interpretive, and expressive proficiencies. Representative topics include observation, perception, and the drawing process; contour and line; value, volume, and light theory; composition and pictorial structure; and linear perspective.

#### **CTE Two-Year Course Review**

- 1. Business 19 Principles of Retailing Management
- 2. Business 21 Human Resources Management
- 3. Computer Science 3 Computer Programming in Java
- 4. Construction Technology 180 Residential Plumbing

# CTE Two-Year Course Review; Change in Catalog Description

1. Administration of Justice 190 - Law Enforcement Explorer Academy *Current Status/Proposed Changes* 

This course is designed to expose the pre-employment student to the many facets of law enforcement. Instructional activities will emphasize career exploration, law enforcement history and organization, professionalism, teamwork, drill and ceremony, Cardiopulmonary Resuscitation (CPR), and firearm safety. Upon successful completion of the course, a student will be eligible to become a member of a local Police Department Explorer Post.

Note: This course is available to students from the age of 14 to 20. Enrollment in this course requires concurrent participation and prior acceptance into one of the six participating Police Explorer Youth Programs (Hawthorne, Santa Monica, Torrance, Manhattan Beach, Gardena, or Inglewood Police Departments) in this region. After the student has completed a law enforcement explorer application with one of the <u>above</u> police agencies, the student will be prepared to enroll in this course.

#### Recommendation

This course is designed to expose the student to the many facets of law enforcement. Instructional activities will emphasize career exploration, law enforcement history and organization, professionalism, teamwork, drill and ceremony, Cardiopulmonary Resuscitation (CPR), and firearm safety. Upon successful completion of the course, a student will be eligible to become a member of a local Police Department Explorer Post.

Note: This course is available to students from the age of 14 to 20. Enrollment in this course requires concurrent participation and prior acceptance into one of the six participating Police Explorer Youth Programs (Hawthorne, Santa Monica, Torrance, Manhattan Beach, Gardena, or Inglewood Police Departments) in this region. After the student has completed a law enforcement explorer application with one of the above police agencies, the student will be prepared to enroll in this course.

# 2. Cosmetology 10 - Introduction to Cosmetology I Current Status/Proposed Changes

This course is the first of a two-course introductory series covering the principles and practical operations of cosmetology techniques, procedures and equipment for wet and thermal styling, permanent waving, chemical straightening, hair coloring, scalp treatments, manicuring and pedicuring. The course also prepares students for procedures. This is a preparatory course for the State Board of Cosmetology examination and employment.

# Recommendation

This course is the first of a two-course introductory series covering cosmetology procedures and equipment for wet and thermal styling, permanent waving, chemical straightening, hair coloring, scalp treatments, manicuring and pedicuring procedures. This is a preparatory course for the State Board of Cosmetology examination and employment.

3. Electronics and Computer Hardware Technology 11 - Introduction to Electronics *Current Status/Proposed Changes* 

This course is an introduction to electronics for students preparing to enter the field and for students interested in consumer electronics. It provides the and provides the basis for further studies in electronics and computer hardware technology. Topics include safety, employment opportunities, the basic theory and applications of electricity, analysis of circuit values using a standard scientific calculator, component identification and schematic diagrams, and the techniques of electrical measurement and employment opportunities. Also introduced are alternating current measurements and the use of the oscilloscope. Electrical/electronic devices employed in automotive and air conditioning systems are also covered.

#### Recommendation

This course is an introduction to electronics and provides the basis for further studies in electronics and computer hardware technology. Topics include safety, the basic theory and applications of electricity, analysis of circuit values using a standard scientific calculator, component identification and schematic diagrams, the techniques of electrical measurement and employment opportunities. Also introduced are alternating current measurements and the use of the oscilloscope. Electrical/electronic devices employed in automotive and air conditioning systems are also covered.

4. Electronics and Computer Hardware Technology 22 - Basic Electronic Fabrication *Current Status/Proposed Changes* 

This course focuses on the materials and the processes used for fabricating electronic systems. The process includes designing, assembling, testing, and documenting a basic electronic fabrication project. Topics covered will include safety, component identification, schematic diagrams, assembly pictorials, soldering (both printed wire boards and terminals), inspection, sheet metal fabrication, hand-tool use, cabling, wire wrapping, printed circuit board construction and repair, Continuous Improvement Techniques (CIT), and Electrostatic Discharge (ESD) awareness. Mass production will be stressed for practical experience in all areas.

#### Recommendation

This course focuses on the materials and the processes used for fabricating electronic systems. The process includes designing, assembling, testing, and documenting a basic electronic fabrication project. Topics covered will include safety, component identification, schematic diagrams, assembly pictorials, soldering (both printed wire boards and terminals), inspection, sheet metal fabrication, hand-tool use, cabling, wire wrapping, printed circuit board construction and repair, Continuous Improvement Techniques (CIT), and Electrostatic Discharge (ESD) awareness. Mass production will be stressed for practical experience in all areas.

5. Electronics and Computer Hardware Technology 110 - Introduction to Direct and Alternating Current Circuits

Current Status/Proposed Changes

This course examines advanced topics in the principles of direct and alternating current electricity through the correlation of theory and laboratory experiments. Basic circuit analysis forms the core of the course. Included in this class are the use of calculators, computer circuit simulation and many types of electrical/electronic test equipment to perform electrical measurements, and yield analysis.

#### Recommendation

This course examines advanced topics in the principles of direct and alternating current electricity through the correlation of theory and laboratory experiments. Basic circuit analysis forms the core of the course. Included in this class are the use of calculators, computer circuit simulation and many types of electrical/electronic test equipment to perform electrical measurements and yield analysis.

6. Engineering Technology 12 - Introduction to Engineering Design *Current Status/Proposed Changes* 

In this course, students will gain are introduced to a basic understanding the basics of the design process used in engineering fields and the application of computer modeling software. Emphasis is placed on the design process, geometric relationships, visualization, technical sketching, modeling, model documentation, assemblies and production processes.

#### Recommendation

In this course, students are introduced to the basics of the design process used in engineering fields and the application of computer modeling software. Emphasis is placed on the design process, geometric relationships, visualization, technical sketching, modeling, model documentation, assemblies and production processes.

7. Engineering Technology 12A - Introduction to Engineering Design I Current Status/Proposed Changes

This <u>course</u> is the first of two courses in which students <u>will gain</u> <u>are introduced to</u> a <u>basic</u> <u>understanding</u> <u>the basics</u> of the design process used in engineering fields and the application of computer modeling software. Emphasis is placed on the design process, geometric relationships, visualization, and technical sketching.

#### Recommendation

This course is the first of two courses in which students are introduced to the basics of the design process used in engineering fields and the application of computer modeling software. Emphasis is placed on the design process, geometric relationships, visualization, and technical sketching.

8. Engineering Technology 12B - Introduction to Engineering Design II *Current Status/Proposed Changes* 

This <u>course</u> is the second of two courses in which students <u>will gain</u> <u>are introduced to a basic understanding the basics</u> of the design process used in engineering fields and the application of computer modeling software. Emphasis is placed on, modeling, model documentation, assemblies and production processes.

#### Recommendation

This course is the second of two courses in which students are introduced to the basics of the design process used in engineering fields and the application of computer modeling software. Emphasis is placed on, modeling, model documentation, assemblies and production processes.

# CTE Two-Year Course Review; Changes in Catalog Description, Conditions of Enrollment (Pre/Corequisite, Recommended Preparation or Enrollment Limitation)

1. Air Conditioning and Refrigeration 31 - HVAC Electronics *Current Status/Proposed Changes* 

<u>Prerequisite: Air Conditioning and Refrigeration 5 with a minimum grade of C or</u> equivalent

Recommended Preparation: Air Conditioning and Refrigeration 21

In this course, students learn the fundamentals of Direct Digital Controls (DDC) used in Heating, Ventilation, Air Conditioning and Refrigeration (HVACR) systems <u>are presented</u>. The topics covered <u>include basic DDC</u> include <u>DDC</u> system components, single and multi-function electronic controls, DDC and pneumatic Variable Air Volume (VAV) systems, variable speed motors, controllers, programmable and configurable logic controller operation and application, introduction to communication protocols, and electronic diagram interpretation.

#### Recommendation

Prerequisite: Air Conditioning and Refrigeration 5 with a minimum grade of C or equivalent

Recommended Preparation: Air Conditioning and Refrigeration 21

In this course, the fundamentals of Direct Digital Controls (DDC) used in Heating, Ventilation, Air Conditioning and Refrigeration (HVACR) systems are presented. The topics covered include DDC system components, single and multi-function electronic controls, DDC and pneumatic Variable Air Volume (VAV) systems, variable speed motors, controllers, programmable and configurable logic controller operation and application, introduction to communication protocols, and electronic diagram interpretation.

# CTE Two-Year Course Review; Change in Catalog Description, New Distance Education Online/Hybrid Course Version

1. Automotive Collision Repair/Painting 1A - Introduction to Automotive Collision Repair *Current Status/Proposed Changes* 

This course is designed to introduce students to automotive collision repair and provide an overview of the skills needed for employment in industry. Topics covered include safety practices, industry repair standards, repair theory, tool identification and use, vehicle construction, gas and electric welding, metal finishing, grinding, applying and shaping plastic filler and spraying primer. This course contains Inter-Industry Conference on Auto Collision Repair (I-CAR) Professional Development Program curriculum.

Note: Automotive Collision Repair/Painting 1A is equivalent to Automotive Collision Repair/Painting 4A and 5A. Students who have completed 4A and 5A have met the 1A prerequisite requirement for 1B, 1C, 1D, 2A, 2B and 2C.

#### Recommendation

This course is designed to introduce students to automotive collision repair and provide an overview of the skills needed for employment in industry. Topics covered include safety practices, industry repair standards, repair theory, tool identification and use, vehicle construction, gas and electric welding, metal finishing, grinding, applying and shaping plastic filler and spraying primer. This course contains Inter-Industry Conference on Auto Collision Repair (I-CAR) Professional Development Program curriculum.

Note: Automotive Collision Repair/Painting 1A is equivalent to Automotive Collision Repair/Painting 4A and 5A.

2. Automotive Collision Repair/Painting 4A - Beginning Automotive Collision Repair I *Current Status/Proposed Changes* 

This course provides instruction in basic safety, tool identification and use, vehicle construction and parts nomenclature, basic estimating, small dent repair, plastics scratch and dent repair, and the mixing and application of primer. This course contains Inter-Industry Conference on Auto Collision Repair (I-CAR) Professional Development Program curriculum.

#### Recommendation

This course provides instruction in basic safety, tool identification and use, vehicle construction and parts nomenclature, basic estimating, small dent repair, plastics scratch and dent repair, and the mixing and application of primer. This course contains Inter-Industry Conference on Auto Collision Repair (I-CAR) Professional Development Program curriculum.

3. Automotive Collision Repair/Painting 4B - Beginning Automotive Collision Repair II Current Status/Proposed Changes

This course provides instruction in automotive Metal Inert Gas (MIG) and Squeeze-Type Resistance Spot Welding (STRSW) and safety, automotive metals, metal finishing, large dent repair, corrosion protection, and vehicle disassembly and reassembly. This course contains Inter-Industry Conference on Auto Collision Repair (I-CAR) Professional Development Program curriculum.

# Recommendation

This course provides instruction in automotive Metal Inert Gas (MIG) and Squeeze-Type Resistance Spot Welding (STRSW) and safety, automotive metals, metal finishing, large dent repair, corrosion protection, and vehicle disassembly and reassembly. This course contains Inter-Industry Conference on Auto Collision Repair (I-CAR) Professional Development Program curriculum.

4. Automotive Collision Repair/Painting 4C - Intermediate Automotive Collision Repair I *Current Status/Proposed Changes* 

This course provides instruction in structural plastic repair, surface and structural repair of fiberglass and composites, aluminum repair and surface treatment for refinishing, vehicle frame and structural parts nomenclature, frame and unibody damage identification and measurement, structural damage estimating, and replacement panel fitment and alignment. This course contains Inter-Industry Conference on Auto Collision Repair (I-CAR) Professional Development Program curriculum.

#### Recommendation

This course provides instruction in structural plastic repair, surface and structural repair of fiberglass and composites, aluminum repair and surface treatment for refinishing, vehicle frame and structural parts nomenclature, frame and unibody damage identification and measurement, structural damage estimating, and replacement panel fitment and alignment. This course contains Inter-Industry Conference on Auto Collision Repair (I-CAR) Professional Development Program curriculum.

5. Automotive Collision Repair/Painting 4D - Intermediate Automotive Collision Repair II *Current Status/Proposed Changes* 

This course introduces students to frame straightening and severe collision damage using the frame rack, power post, damage dozer, hydraulic jacks and <u>Porto-Power hydraulic ram</u>. Students will also learn <u>Topics covered include</u> how to section a vehicle, replace damaged unibody structural panels, and prepare replaced panels for rustproofing/refinishing. <u>This course contains Inter-Industry Conference on Auto Collision Repair (I-CAR) Professional Development Program curriculum.</u>

#### Recommendation

This course introduces students to frame straightening and severe collision damage using the frame rack, power post, damage dozer, hydraulic jacks and Porto-Power hydraulic ram. Topics covered include how to section a vehicle, replace damaged unibody structural panels and prepare replaced panels for rustproofing/refinishing. This course contains

Inter-Industry Conference on Auto Collision Repair (I-CAR) Professional Development Program curriculum.

6. Automotive Collision Repair/Painting 5A - Beginning Automotive Painting I Current Status/Proposed Changes

This course provides instruction in personal safety, environmental laws, introduction to surface preparation, mixing ratios, spray booth use, spray gun adjustment, use and cleaning, priming and painting vehicle parts and panels, and color sanding and buffing. This course contains Inter-Industry Conference on Auto Collision Repair (I-CAR) Professional Development Program curriculum.

#### Recommendation

This course provides instruction in personal safety, environmental laws, introduction to surface preparation, mixing ratios, spray booth use, spray gun adjustment, use and cleaning, priming and painting vehicle parts and panels, and color sanding and buffing. This course contains Inter-Industry Conference on Auto Collision Repair (I-CAR) Professional Development Program curriculum.

7. Automotive Collision Repair/Painting 5B - Beginning Automotive Painting II *Current Status/Proposed Changes* 

This course provides instruction in vehicle disassembly for refinishing, surface preparation of unpainted surfaces, specialty undercoats and corrosion protection, plastics refinishing, and painting parts and complete cars. This course contains Inter-Industry Conference on Auto Collision Repair (I-CAR) Professional Development Program curriculum.

# Recommendation

This course provides instruction in vehicle disassembly for refinishing, surface preparation of unpainted surfaces, specialty undercoats and corrosion protection, plastics refinishing, and painting parts and complete cars. This course contains Inter-Industry Conference on Auto Collision Repair (I-CAR) Professional Development Program curriculum.

8. Automotive Collision Repair/Painting 5C - Intermediate Automotive Refinishing I *Current Status/Proposed Changes* 

In this course, students will learn refinishing repair standards and how to write an estimate for refinishing. Students will learn how to identify and correct paint flaws, choose color variants, retrieve and mix paint formulas, adjust paint for color match, and perform panel blends and spot repairs. Students will also learn how to mask panels for blending and how to refinish composite materials such as fiberglass and carbon fiber. This course contains Inter-Industry Conference on Auto Collision Repair (I-CAR) Professional Development Program curriculum.

#### Recommendation

In this course, students will learn refinishing repair standards and how to write an estimate for refinishing. Students will learn how to identify and correct paint flaws, choose color variants, retrieve and mix paint formulas, adjust paint for color match, and perform panel blends and spot repairs. Students will also learn how to mask panels for blending and how to refinish composite materials such as fiberglass and carbon fiber. This course contains Inter-Industry Conference on Auto Collision Repair (I-CAR) Professional Development Program curriculum.

9. Automotive Collision Repair/Painting 5D - Intermediate Automotive Refinishing II *Current Status/Proposed Changes* 

In this course, students will improve their This course provides instruction on production painting skills by learning how to control their and maximizing shop throughput by controlling the painting environment through spray booth controls, temperature and humidity control, paint additives and gun adjustment. Students will also learn how to apply Additional topics covered include spot blending and applying tri-coat paints, flat paints, truck bedliner, single stage paints and interior paints. This course contains Inter-Industry Conference on Auto Collision Repair (I-CAR) Professional Development Program curriculum.

#### Recommendation

This course provides instruction on production painting skills and maximizing shop throughput by controlling the painting environment through spray booth controls, temperature and humidity control, paint additives and gun adjustment. Additional topics covered include spot blending and applying tri-coat paints, flat paints, truck bedliner, single stage paints and interior paints. This course contains Inter-Industry Conference on Auto Collision Repair (I-CAR) Professional Development Program curriculum.

# CTE Two-Year Course Review; Changes in Catalog Description, Conditions of Enrollment (Pre/Corequisite, Recommended Preparation or Enrollment Limitation), New Distance Education Online/Hybrid Course Version

1. Automotive Collision Repair/Painting 1B - Collision Repair Equipment and Welding Techniques

Current Status/Proposed Changes

Prerequisite: Automotive Collision Repair/Painting 1A <u>or Automotive Collision</u> Repair/Painting 4A with a minimum grade of C <u>in prerequisite or equivalent</u>

This course provides instruction on collision repair equipment and welding techniques involving safety practices, vehicle collision analysis and theory, vehicle disassembly procedures, and body component fit-up and alignment principles. The topics of replacing door skins, panel bonding, steel patch panel fabrication, weld-in panel replacement and aluminum panel repair are also covered. Equipment used includes Metal Inert Gas (MIG) and Squeeze-Type Resistance Spot Welders (STRSW), hydraulic jacks, pneumatic and other specialty tools. This course contains Inter-Industry Conference on Auto Collision Repair (I-CAR) Professional Development Program curriculum.

#### Recommendation

Prerequisite: Automotive Collision Repair/Painting 1A or Automotive Collision Repair/Painting 4A with a minimum grade of C in prerequisite or equivalent

This course provides instruction on collision repair equipment and welding techniques involving safety practices, vehicle collision analysis and theory, vehicle disassembly procedures and body component fit-up and alignment principles. The topics of replacing door skins, panel bonding, steel patch panel fabrication, weld-in panel replacement and aluminum panel repair are also covered. Equipment used includes Metal Inert Gas (MIG) and Squeeze-Type Resistance Spot Welders (STRSW), hydraulic jacks, pneumatic and other specialty tools. This course contains Inter-Industry Conference on Auto Collision Repair (I-CAR) Professional Development Program curriculum.

2. Automotive Collision Repair/Painting 1C - Major Collision Analysis and Repair *Current Status/Proposed Changes* 

Prerequisite: Automotive Collision Repair/Painting 1A <u>or Automotive Collision</u> Repair/Painting 4A with a minimum grade of C <u>in prerequisite or equivalent</u>

This course provides instruction in full frame and unibody vehicle construction and damage types, locating and analyzing direct and indirect damage, planning a pull, setting up and using a frame rack with and without computerized measuring systems, and replacing structural parts and panels with Metal Inert Gas (MIG) and Squeeze-Type Resistance Spot Welders (STRSW). The topics of vehicle sectioning, structural glass, suspension components, front-end alignment, and damage estimating are also covered. This course contains Inter-Industry Conference on Auto Collision Repair (I-CAR) Professional Development Program curriculum.

#### Recommendation

Prerequisite: Automotive Collision Repair/Painting 1A or Automotive Collision Repair/Painting 4A with a minimum grade of C in prerequisite or equivalent

This course provides instruction in full frame and unibody vehicle construction and damage types, locating and analyzing direct and indirect damage, planning a pull, setting up and using a frame rack with and without computerized measuring systems, and replacing structural parts and panels with Metal Inert Gas (MIG) and Squeeze-Type Resistance Spot Welders (STRSW). The topics of vehicle sectioning, structural glass, suspension components, front-end alignment, and damage estimating are also covered. This course contains Inter-Industry Conference on Auto Collision Repair (I-CAR) Professional Development Program curriculum.

3. Automotive Collision Repair/Painting 2A - Basic Automotive Painting - Refinishing *Current Status/Proposed Changes* 

<u>Prerequisite: Automotive Collision Repair/Painting 1A or Automotive Collision</u> Repair/Painting 5A with a minimum grade of C or equivalent

In this course, students are introduced to automotive painting and refinishing and the skills needed for employment in industry. Topics covered include safety practices, industry

repair standards, Volatile Organic Compound (VOC) recording, surface identification, surface preparation, abrasives, metal conditioning, vehicle masking, primers, and spray equipment. This course contains Inter-Industry Conference on Auto Collision Repair (I-CAR) Professional Development Program curriculum.

#### Recommendation

Prerequisite: Automotive Collision Repair/Painting 1A or Automotive Collision Repair/Painting 5A with a minimum grade of C or equivalent

In this course, students are introduced to automotive painting and refinishing and the skills needed for employment in industry. Topics covered include safety practices, industry repair standards, Volatile Organic Compound (VOC) recording, surface identification, surface preparation, abrasives, metal conditioning, vehicle masking, primers, and spray equipment. This course contains Inter-Industry Conference on Auto Collision Repair (I-CAR) Professional Development Program curriculum.

4. Automotive Collision Repair/Painting 2B - Automotive Refinishing Materials and Equipment

Current Status/Proposed Changes

Prerequisite: Automotive Collision Repair/Painting 1A or Automotive Collision Repair/Painting 2A or Automotive Collision Repair/Painting 5A or Automotive Collision Repair/Painting 5B with a minimum grade of C in prerequisite or equivalent

This course provides instruction on the principles of automotive refinishing involving safety practices and equipment, air supply equipment, refinishing spray booth, spray equipment, undercoat materials, solvents, topcoat color systems, and paint application procedures. This course contains Inter-Industry Conference on Auto Collision Repair (I-CAR) Professional Development Program curriculum.

Note: Automotive Collision Repair/Painting 2B is equivalent to the two course sequence Automotive Collision Repair/Painting 5C and 5D.

#### Recommendation

Prerequisite: Automotive Collision Repair/Painting 1A or Automotive Collision Repair/Painting 5A with a minimum grade of C in prerequisite or equivalent

This course provides instruction on the principles of automotive refinishing involving safety practices and equipment, air supply equipment, refinishing spray booth, spray equipment, undercoat materials, solvents, topcoat color systems, and paint application procedures. This course contains Inter-Industry Conference on Auto Collision Repair (I-CAR) Professional Development Program curriculum.

5. Automotive Collision Repair/Painting 2C - Automotive Refinishing Applications Current Status/Proposed Changes

Prerequisite: Automotive Collision Repair/Painting 1A or Automotive Collision Repair/Painting 2A or Automotive Collision Repair/Painting 4A and Automotive Collision Repair/Painting 4B or Automotive Collision Repair/Painting 5A and

Automotive Collision Repair/Painting 5B with a minimum grade of C in each prerequisite course or equivalent

This course provides instruction on the principles of automotive refinishing involving safety practices, estimating, paint additives, paint removal, plastic component refinishing, spot repair, color sanding and buffing, multi-stage finishes and paint accessories. This course includes Inter-Industry Conference on Auto Collision Repair (I-CAR) Professional Development Program curriculum.

#### Recommendation

Prerequisite: Automotive Collision Repair/Painting 1A or Automotive Collision Repair/Painting 5A with a minimum grade of C in prerequisite or equivalent

This course provides instruction on the principles of automotive refinishing involving safety practices, estimating, paint additives, paint removal, plastic component refinishing, spot repair, color sanding and buffing, multi-stage finishes and paint accessories. This course includes Inter-Industry Conference on Auto Collision Repair (I-CAR) Professional Development Program curriculum.

CTE Two-Year Course Review; Changes in Catalog Description, Conditions of Enrollment (Pre/Corequisite, Recommended Preparation or Enrollment Limitation), Descriptive Title, New Distance Education Online/Hybrid Course Version

Current Status/Proposed Changes

1. Automotive Collision Repair/Painting 1D - Automotive Component Systems Analysis and Repair Mechanical and Electrical Systems for Collision Repair Technicians

Prerequisite: Automotive Collision Repair/Painting 1A <u>or Automotive Collision</u> <u>Repair/Painting 4A</u> with a minimum grade of C <u>in prerequisite or equivalent</u>

This course includes instruction in steering and suspension system parts and damage identification, wheel alignment, airbag deactivation and reactivation, hybrid/electric vehicle safety and interior upholstery and reconditioning. This course also provides instruction in correcting structural damage and replacing structural parts such as core support supports, center pillar damage and replacing pillars, front side members, structural glass replacement, aluminum and composite structural components, and restoring corrosion protection. This course contains Inter-Industry Conference on Auto Collision Repair (I-CAR) Professional Development Program curriculum.

#### Recommendation

Automotive Collision Repair/Painting 1D - Mechanical and Electrical Systems for Collision Repair Technicians

Prerequisite: Automotive Collision Repair/Painting 1A or Automotive Collision Repair/Painting 4A\_with a minimum grade of C in prerequisite or equivalent

This course includes instruction in steering and suspension system parts and damage identification, wheel alignment, airbag deactivation and reactivation, hybrid/electric vehicle safety and interior upholstery and reconditioning. This course also provides instruction in correcting structural damage and replacing structural parts such as core supports, center pillars, front side members, structural glass, aluminum and composite structural components and restoring corrosion protection. This course contains Inter-Industry Conference on Auto Collision Repair (I-CAR) Professional Development Program curriculum.

# **Articulation Agreements**

# 1. Banning High School

Beginning Automotive Collision Repair I Beginning Automotive Collision Repair II

# El Camino College

Automotive Collision Repair/Painting 4A Automotive Collision Repair/Painting 4B

# 2. Leuzinger High School

Theory and Relevancy of Global Environmental Awareness

El Camino College

Environmental Technology 101

Sustainable Energy and Renewable Building Sciences and Technologies

Environmental Technology 102

# 3. Port of Los Angeles High School

**Building Fundamentals** 

El Camino College

Construction Technology 100

# 4. Project Lead the Way (Regional)

Introduction to Engineering Design

El Camino College

Engineering Technology 12

# 5. Torrance Adult School

Medical Terminology

El Camino College

Medical Terminology 1