De Anza College

Change Report

05/31/2024

Summary of Changes

Section	Changed field
General Information	Faculty Initiator
General Information	Effective Term
General Information	Course Description
General Information	Course Type (CB27)
General Information	Mode of Delivery
Faculty Requirements	Discipline 1
Faculty Requirements	FSA
Specifications	Methods of Instruction
Specifications	Methods of Evaluation
Specifications	Examples of Primary Texts and References
Specifications	Suggested Reading List
Learning Outcomes and Objectives	CSLOs
Curriculum Office	Banner Start Term (202122)
Curriculum Office	Banner Division
Curriculum Office	Catalog Term (21-22)
Curriculum Office	5 Year Revision Year (2021)
Curriculum Office	Effective Quarter
Curriculum Office	Effective Year (2021)
Curriculum Office	Course Status Code
Curriculum Office	Banner Department
Curriculum Office	Course Level

Section	Changed field
Curriculum Office	College Code
Curriculum Office	CTE Status
Curriculum Office	DL Approval Date (MM/DD/YYYY)
Curriculum Office	Emergency Approval
Curriculum Office	Repeat Status (N = Not Repeatable; T = Repeatable for Max Times Only; B = Repeatable for Max Times/Units; U = Repeatable for Max Units Only; Y = Yearly Repeatable Restriction)
Curriculum Office	Repeat Type (N = Non-repeatable Credit; A = Activity/Other Repeatable; F = Family Non-repeatable Credit; G = Family Activity/Other Repeatable; L = Legally Mandated Training)
Curriculum Office	Noncredit Enhanced Funding Indicator
Curriculum Office	In Service Indicator
Curriculum Office	Sports/Physical Education Course Indicator
Curriculum Office	COA Code
Curriculum Office	Fund Code
Curriculum Office	Organization Code
Curriculum Office	Account Code
Curriculum Office	Program Code
Curriculum Office	Percent
Curriculum Office	Print/No Print to Catalog
Summary of Revisions	Basic Course Information
Summary of Revisions	Specifications
B-Matrix Form	Objective 7: Demonstrate writing as a multi-step process including attention to planning and revision.
E-Matrix Form	Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.
Comments	Stage 5: SLO Coordinator
Comments	Stage 7: Content Review Matrix Liaison

Section	Changed field
Comments	Stage 9: Articulation Officer
CTE Course	Is this a CTE (Career Technical Education) course?
Honors/Non-honors Course	Is this an honors/non-honors course?
Mirrored Credit/Noncredit Course	Is this a mirrored credit/noncredit course?
Cross-listed Course	Is this a cross-listed course?

General Information

Changed	Field	Current Version	Proposed Version
❗	**Faculty Initiator**	• Mike Appio	• Xavier Silva • Johnson, Brett
	Course ID (CB01A and CB01B)	AUTOD066.	AUTOD066.
	Course Control Number	CCC000230666	CCC000230666
	Course Title (CB02)	Automotive Air Conditioning	Automotive Air Conditioning
	Short Course Title	AUTO AIR CONDITIONING	AUTO AIR CONDITIONING
	TOP Code (CB03)	0948.00	0948.00 Automotive Technology
	CIP Code	Automobile/Automotive Mechanics Technology/Technician	47.0604 Automobile/Automotive Mechanics Technology/Technician
	Department	AUTO - Automotive Technology	AUTO - Automotive Technology
❗	**Effective Term**	Fall 2023	Fall ~~2023~~ 2025
	SAM Priority Code (CB09)	Clearly Occupational	Clearly Occupational

Changed	Field	Current Version	Proposed Version
❗	**Course Description**	Operation and service of automotive air conditioning refrigeration and electrical control systems. Includes retrofitting. Emphasis on diagnosis and repair of systems. Preparation for Automotive Service Excellence (ASE) certification examination in Area A7.	~~Operation~~ This course covers the operation and service of automotive air conditioning refrigeration and electrical control systems. ~~Includes~~ This course also includes retrofitting. ~~Emphasis~~ There is an emphasis on diagnosis and repair of systems. ~~Preparation~~ This course also prepares the student for Automotive Service Excellence (ASE) certification examination in Area A7.
❗	**Course Type (CB27)**	No value	• Lower Division
❗	**Mode of Delivery**	• Online	• In person ONLY

Faculty Requirements

Changed	Field	Current Version	Proposed Version
❗	**Discipline 1**	No value	• Automotive Technology
	Discipline 2	No value	No value
	Discipline 3	No value	No value
❗	**FSA**	No value	• FHDA FSA - AUTO TECH

Formerly Statement

Changed	Field	Current Version	Proposed Version
	Formerly Statement	No value	

Course Justification

Changed	Field	Current Version	Proposed Version
	Course Justification	This CTE, CSU transferable course belongs on the Certificate of Achievement in Automotive Technology. It is also intended to better prepare students for work in the automotive industry in the areas of automotive air conditioning refrigeration and electrical control systems, as advised by our industry advisory committee.	This CTE, CSU transferable course belongs on the Certificate of Achievement in Automotive Technology. It is also intended to better prepare students for work in the automotive industry in the areas of automotive air conditioning refrigeration and electrical control systems, as advised by our industry advisory committee.

Stand-Alone Statement

Changed	Field	Current Version	Proposed Version
	Stand-Alone Statement	No value	

Course Philosophy

Changed	Field	Current Version	Proposed Version
	Course Philosophy	No value	

Foothill Equivalency

Changed	Field	Current Version	Proposed Version
	Does the course have a Foothill equivalent?	No	No
	Foothill Faculty Consultation Name	No value	
	Foothill Course ID	No value	

CTE Course

Changed	Field	Current Version	Proposed Version
❗	**Is this a CTE (Career Technical Education) course?**	No value	Yes

Honors/Non-honors Course

Changed	Field	Current Version	Proposed Version
❗	**Is this an honors/non-honors course?**	No value	No

Mirrored Credit/Noncredit Course

Changed	Field	Current Version	Proposed Version
❗	**Is this a mirrored credit/noncredit course?**	No value	Yes - don't forget to duplicate the revisions in the mirrored credit/noncredit course

Cross-listed Course

Changed	Field	Current Version	Proposed Version
❗	**Is this a cross-listed course?**	No value	No

More Options

Changed	Field	Current Version	Proposed Version

Changed	Field	Current Version	Proposed Version
	Basic Skill Status (CB08)	Course is not a basic skills course.	Course is not a basic skills course.
	Course Prior To College Level	Not applicable.	Not applicable.
	Course Special Class Status (CB13)	Course is not a special class.	Course is not a special class.
	Course Support Status (CB26)	Course is not a support course	Course is not a support course
	Repeat Limit	0	0
	Grade Options	• Letter Grade • Pass/No Pass	• Letter Grade • Pass/No Pass
	Allow Students to Gain Credit by Exam/Challenge	☐	☐
	Repeatability Statement	No value	

Associated Programs

Changed	Field	Current Version	Proposed Version
	Course is part of a program	**Associated Program**: 217_Autonomous and Electrical Vehicle Technician (Level 2) (In Development) **Award Type**: Certificate of Achievement (COA) **Associated Program**: Advanced Automotive Technology **Award Type**: Certificate of Achievement (COA)	**Associated Program**: 217_Autonomous and Electrical Vehicle Technician (Level 2) (In Development) **Award Type**: Certificate of Achievement (COA) **Associated Program**: Advanced Automotive Technology **Award Type**: Certificate of Achievement (COA)

Transferability & Gen. Ed. Options

Changed	Field	Current Version	Proposed Version
	Transfer Status (CB05)	Transferable to CSU only	Transferable to CSU only
	Course General Education Status (CB25)	Y	Y
	Transfer Status	Approved	Approved
	GE Information	No value	No value

Weekly Student Hours - Profile Name: Default Profile

Changed	Field	Current Version	Proposed Version
	Lecture Hours - In Class	4.5	4.5
	Lecture Hours - Out of Class	9	9
	Laboratory Hours - In Class	0	0
	Laboratory Hours - Out of Class	0	0
	NA Hours - In Class	0	0
	NA Hours - Out of Class	0	0

Course Student Hours - Profile Name: Default Profile

Changed	Field	Current Version	Proposed Version
	Course Duration (Weeks)	12	12
	Hours per unit divisor	36	36
	Total Student Learning Hours	162	162
	Lecture Hours - Course In-Class (Contact) per Term	54	54
	Lecture Hours - Course Out-of-Class per Term	108	108
	Laboratory Hours - Course In-Class (Contact) per Term	0	0
	Laboratory Hours - Course Out-of-Class per Term	0	0
	NA Hours - Course In-Class (Contact) per Term	0	0
	NA Hours - Course Out-of-Class per Term	0	0
	Total - Course In-Class (Contact) Hours	54	54

Changed	Field	Current Version	Proposed Version
	Total - Course Out-of-Class Hours	108	108
	Total Credit Units - Minimum Credit Units	4.5	4.5
	Total Credit Units - Maximum Credit Units	4.5	4.5

Speciality Hours

Changed	Field	Current Version	Proposed Version
	Speciality Hours	No value	No value

Credit / Non-Credit Options

Changed	Field	Current Version	Proposed Version
	COURSE CLASSIFICATION STATUS	Credit Course.	Credit Course.
	Course Credit Status (CB04)	Credit - Degree Applicable	Credit - Degree Applicable
	Course Non Credit Category (CB22)	Credit Course.	Credit Course.
	Funding Agency Category (CB23)	Not Applicable.	Not Applicable.
	Cooperative Work Experience Education Status (CB10)	☐	☐

Changed	Field	Current Version	Proposed Version
	Variable Credit Course	☐	☐

Credit Units

Changed	Field	Current Version	Proposed Version
	Course Duration (Weeks)	12	12
	Total Lecture Hours per Term	162	162
	Total Laboratory Hours per Term	-	0
	Total Contact Hours per Term	-	0
	Total Credit Units	4.5	4.5
	Minimum Credit Units	4.5	4.5
	Maximum Credit Units	4.5	4.5

SKIP

Changed	Field	Current Version	Proposed Version
	SKIP	No Value	No Value

Specifications

Changed	Field	Current Version	Proposed Version
❗	**Methods of Instruction**	**Methods of Instruction** **Methods of Instruction**: Lecture and visual aids Discussion of assigned reading Discussion and problem solving performed in class Quiz and examination review performed in class	**Methods of Instruction**: Methods of Instruction **Methods of Instruction**: Lecture and visual aids Discussion of assigned reading Discussion and problem solving performed in class Quiz and examination review performed in class
	Assignments	1. Reading from texts and handouts 2. Performance research paper	1. Reading from texts and handouts 2. Performance research paper

Changed	Field	Current Version	Proposed Version
❗	**Methods of Evaluation**	**Methods of Evaluation** **Methods of Evaluation** 1. Final exam consisting of multiple-choice questions that requires the students to identify and diagnose automotive air conditioning refrigeration and electrical control systems. 2. Five multiple choice examinations, each focused on the areas of automotive air conditioning to be evaluated for correctness. 3. Performance research assignment paper focusing on an area of interest related to one of the course objectives to be evaluated for the comprehensive understanding of air conditioning systems.	**Methods of Evaluation** Methods of Evaluation **Methods of Evaluation** 1. Final exam consisting of multiple-choice questions that requires the students to identify and diagnose automotive air conditioning refrigeration and electrical control systems. 2. Weekly multiple choice examinations, each focused on the areas of automotive air conditioning to be evaluated for correctness. 3. Performance research assignment paper focusing on an area of interest related to one of the course objectives to be evaluated for the comprehensive understanding of air conditioning systems.

Changed	Field	Current Version	Proposed Version
	Essential Student Materials/Essential College Facilities	**Essential Student Materials:** • Safety glasses for lab demonstrations **Essential College Facilities:** • Classroom with automotive lab access for demonstrations • All DATA electronic information system www.alldata.com • Mitchell on demand electronic information system www.mitchell1.com	**Essential Student Materials:** • Safety glasses for lab demonstrations **Essential College Facilities:** • Classroom with automotive lab access for demonstrations • All DATA electronic information system www.alldata.com • Mitchell on demand electronic information system www.mitchell1.com
	Examples of Primary Texts and References	**Title** No value **Author** Automotive Heating and Air Conditioning 7th Edition, Birch 2014. **Publisher** No value **Date/Edition** No value **ISBN** No value	**Title** Automotive Heating and Air Conditioning **Author** James D. Halderman **Publisher** Pearson **Date/Edition** 9th Edition, 2023 **ISBN** No value

Changed	Field	Current Version	Proposed Version
!	**Suggested Reading List**	**Reading List**: All DATA electronic information system www.alldata.com **May include, but are not limited to**: No value **Reading List**: Mitchell on demand electronic information system www.mitchell1.com **May include, but are not limited to**: No value **Reading List**: Manufacturer's shop manuals as required **May include, but are not limited to**: No value	No value

Learning Outcomes and Objectives

Changed	Field	Current Version	Proposed Version
	Course Objectives	• Define basic refrigeration systems and components • Demonstrate the procedure for charging and evacuating the air conditioning system • Define electrical control of compressor and blower • Define electrical and vacuum controls • Demonstrate diagnosis and repair procedures • Evaluate retro-fit procedures for specific applications • Define test and repair equipment	• Define basic refrigeration systems and components • Demonstrate the procedure for charging and evacuating the air conditioning system • Define electrical control of compressor and blower • Define electrical and vacuum controls • Demonstrate diagnosis and repair procedures • Evaluate retro-fit procedures for specific applications • Define test and repair equipment
❗	**CSLOs**	**CSLOs**: Students will understand proper refrigerant recovery, recycling, and handling procedures. **Expected SLO Performance**: 0.0	**CSLOs**: Explain proper refrigerant recovery, recycling, and handling procedures. **Expected SLO Performance**: 0.0

Course Outline

Changed	Field	Current Version	Proposed Version
❗	**Course Content**	1. Define basic refrigeration systems and components 1. Theory of operation 2. Compressor 3. Condenser 4. Receiver/drier 5. Expansion valve or tube 6. Evaporator 7. Thermostatic control switch 8. Pressure cycling switch 9. System control devices 2. Demonstrate the procedure for charging and evacuating the air conditioning system 1. System charging 2. Evacuation 3. Leak detection 4. Refrigerant recovery 3. Define electrical control of compressor and blower 1. Diagnostic procedure 2. Different types of control circuits 4. Define electrical and vacuum controls 1. Vacuum circuitry 2. Diagnosis procedure of vacuum circuits 3. Electrical and electronic controls 5. Demonstrate diagnosis and repair procedures 1. Diagnosis of problems 2. Component repair and replacement 6. Evaluate retro-fit procedures for specific applications 1. When recommended 2. Legal requirements 3. Performance requirements 7. Define test and repair equipment 1. Leak detector 2. Gauge set 3. Electronic testers 4. Specialty wrenches and tools	1. Define basic refrigeration systems and components 1. Theory of operation 2. Compressor 3. Condenser 4. Receiver/drier 5. Expansion valve or tube 6. Evaporator 7. Thermostatic control switch 8. Pressure cycling switch 9. System control devices 2. Demonstrate the procedure for charging and evacuating the air conditioning system 1. System charging 2. Evacuation 3. Leak detection 4. Refrigerant recovery 3. Define electrical control of compressor and blower 1. Diagnostic procedure 2. Different types of control circuits 4. Define electrical and vacuum controls 1. Vacuum circuitry 2. Diagnosis procedure of vacuum circuits 3. Electrical and electronic controls 4. Calculate resistance values of sensor components 5. Demonstrate diagnosis and repair procedures 1. Diagnosis of problems 2. Component repair and replacement 6. Evaluate retro-fit procedures for specific applications 1. When recommended 2. Legal requirements 3. Performance requirements 7. Define test and repair equipment 1. Leak detector 2. Gauge set 3. Electronic testers

Changed	Field	Current Version	Proposed Version
			4. Specialty wrenches and tools
	Lab Component in this Course	No	No
	Lab Outline	No value	No value

Req/Adv

Changed	Questions	Current Version	Proposed Version
	Prerequisite(s):	No Value	No Value
	Corequisite(s):	No Value	No Value
	Advisory(ies):	ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra	ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra
	Advisory(ies) - Other:	No Value	No Value
	Limitation(s) on Enrollment:	No Value	No Value
	Limitation(s) on Enrollment - Other:	No Value	No Value
	Entrance Skills(s):	No Value	No Value
	Entrance Skill(s) - Other:	No Value	No Value
	General Course Statement(s):	No Value	No Value
	General Course Statement(s) - Other:	No Value	No Value

Curriculum Office

Changed	Questions	Current Version	Proposed Version
!	**Banner Start Term (202122)**	202122	No Value
!	**Banner Division**	2AT	No Value
!	**Catalog Term (21-22)**	23-24	No Value
!	**5 Year Revision Year (2021)**	2018	No Value
!	**Effective Quarter**	Fall	No Value
!	**Effective Year (2021)**	2023	No Value
	Sort ID (00 < 10; 0 < 100)	AUTO 066	AUTO 066
	Course Status	Non-substantial	Non-substantial
!	**Course Status Code**	A	No Value
!	**Banner Department**	AUTO	No Value
!	**Course Level**	DU	No Value
!	**College Code**	DA	No Value
	Course Characteristics	CTE	CTE
	Cross-Listed/Related Course Information	NA	NA
	Cross-Listed/Related Course ID's	No Value	No Value
!	**CTE Status**	Yes	No Value

Changed	Questions	Current Version	Proposed Version
!	**DL Approval Date (MM/DD/YYYY)**	10/27/2020	No Value
	Hybrid Approval Date (MM/DD/YYYY)	No Value	No Value
!	**Emergency Approval**	DL	No Value
!	**Repeat Status (N = Not Repeatable; T = Repeatable for Max Times Only; B = Repeatable for Max Times/Units; U = Repeatable for Max Units Only; Y = Yearly Repeatable Restriction)**	N	No Value
!	**Repeat Type (N = Non-repeatable Credit; A = Activity/Other Repeatable; F = Family Non-repeatable Credit; G = Family Activity/Other Repeatable; L = Legally Mandated Training)**	N	No Value
!	**Noncredit Enhanced Funding Indicator**	N	No Value
!	**In Service Indicator**	N	No Value

Changed	Questions	Current Version	Proposed Version
!	**Sports/Physical Education Course Indicator**	N	No Value
!	**COA Code**	C	No Value
!	**Fund Code**	114000	No Value
!	**Organization Code**	236503	No Value
!	**Account Code**	1320	No Value
!	**Program Code**	094800	No Value
!	**Percent**	100	No Value
	Curriculum Office Notes	• Requisite change appr. 1/17/23 (effect. F23).-cc	• Requisite change appr. 1/17/23 (effect. F23).-cc
!	**Print/No Print to Catalog**	Yes	No Value
	Checklist	No Value	No Value

Summary of Revisions

Changed	Questions	Current Version	Proposed Version
!	**Basic Course Information**	No Value	Description update
	Units and Hours	No Value	No Value
!	**Specifications**	No Value	Updated textbooks and references to reflect current publications
	Outline	No Value	No Value
	Other	No Value	No Value

Blue Form

Changed	Questions	Current Version	Proposed Version
	For changes to the units and hours tab; 1) Contact the Curriculum Office at curriculum@fhda.edu with the course information changes; and 2) address items 1-3 below. Please be aware that load factors and seat counts are assigned based on established, negotiated values.	No Value	No Value
	1. Is the unit(s) change required for articulation?	No Value	No Value
	2. If the course is UC or CSU transferable, identify one UC or CSU campus with the same unit value requested and copy and paste the catalog description of the course.	No Value	No Value
	3. Identify the areas in the course outline of record that justify the unit(s) and/or hour(s) change.	No Value	No Value
	Office Use ONLY: For a REVISION, state the existing unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.	No Value	No Value
	Office Use ONLY: For a REVISION, state the new unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Office Use ONLY: For NEW, state the unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.	No Value	No Value

A-Matrix Form

Changed	Questions	Current Version	Proposed Version
	EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.	No Value	No Value
	Objective 1: Analyze college level texts and discourse that are culturally and rhetorically diverse.	No Value	No Value
	Objective 2: Compose essays drawn from personal experience and assigned texts.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 3: Utilize MLA guidelines to format essays, cite sources, and compile a works cited page.	No Value	No Value
	Objective 4: Create syntactically varied sentences that are free of mechanical errors.	No Value	No Value
	Objective 5: Distinguish, compare, and evaluate the multiplicity and ambiguity of perspectives.	No Value	No Value

B-Matrix Form

Changed	Questions	Current Version	Proposed Version
	ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 1: Analyze a variety of college-level texts with a focus predominantly on expository and argumentative writing.	No Value	No Value
	Objective 2: Develop analytical ideas and topics for essays.	No Value	No Value
	Objective 3: Compose and support thesis statements for analytical essays.	No Value	No Value
	Objective 4: Develop clear sequential relationship between central argument/controlling idea and supporting ideas in writing.	No Value	No Value
	Objective 5: Identify and practice writing for different audiences and purposes.	No Value	No Value
	Objective 6: Develop and demonstrate a variety of rhetorical strategies to develop strong analysis in essays.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
!	**Objective 7: Demonstrate writing as a multi-step process including attention to planning and revision.**	No Value	From outline: A. Define basic refrigeration systems and components Create a workflow in order of which refrigerant travels through an automotive air conditioning system in the order necessary to function properly. Describe the processes that must happen to create temperature delta and how the refrigerant change in state is necessary to each step of the workflow. Explain each component and its role in refrigeration systems.
	Objective 8: Practice composing organized, developed, analytical essays that increase in complexity.	No Value	No Value
	Objective 9: Demonstrate appropriate grammar usage and mechanics.	No Value	No Value

C-Matrix Form

Changed	Questions	Current Version	Proposed Version
	ESL D261. and ESL D265., or ESL D461. and ESL D465., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.	No Value	No Value
	Objective 1: Create compositions about fiction and non-fiction texts from many cultural and social perspectives in a variety of genres.	No Value	No Value
	Objective 2: Compose a focused, purposeful, developed paper of 500 words or more that engages with, responds to, or is inspired by written or visual texts.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 3: Produce written work using a cyclical process of multiples drafts and revisions.	No Value	No Value
	Objective 4: Demonstrate the ability to include a variety of sentence structures in writing.	No Value	No Value
	Objective 5: Edit compositions to correct errors in the major conventions of Standard Written English.	No Value	No Value

D-Matrix Form

Changed	Questions	Current Version	Proposed Version
	Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.	No Value	No Value
	Objective 1: Plan, implement, and assess work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.	No Value	No Value
	Objective 2: Investigate the use of mathematics in real world.	No Value	No Value
	Objective 3: Explore functions.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 4: Develop linear function models.	No Value	No Value
	Objective 5: Use systems of two linear equations to solve real world problems.	No Value	No Value
	Objective 6: Use linear inequalities in one variable to solve real world problems.	No Value	No Value
	Objective 7: Examine exponential expressions and develop exponential function models.	No Value	No Value
	Objective 8: Examine logarithmic expressions and develop logarithmic function models.	No Value	No Value
	Objective 9: Develop quadratic function models to solve problems.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 10: Investigate the characteristics of rational expressions.	No Value	No Value
	Objective 11: Develop skills to work with radical expressions.	No Value	No Value

E-Matrix Form

Changed	Questions	Current Version	Proposed Version
	Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.	No Value	No Value
!	**Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.**	No Value	From outline: A. Define electrical and vacuum controls 4. Calculate resistance values of sensor components

Changed	Questions	Current Version	Proposed Version
	Objective 2: Explore the function concept algebraically, numerically, verbally and graphically.	No Value	No Value
	Objective 3: Explore the graphical and numerical characteristics of linear relationships and describe their meaning in the context of a problem.	No Value	No Value
	Objective 4: Develop linear function models to solve problems.	No Value	No Value
	Objective 5: Use systems of two linear equations to solve real-world problems.	No Value	No Value
	Objective 6: Explore the graphical and numerical characteristics of quadratic relationships and describe their meaning in the context of a problem.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 7: Develop quadratic function models to solve problems.	No Value	No Value
	Objective 8: Use inequalities to solve real world problems.	No Value	No Value
	Objective 9: Explore arithmetic sequences and series.	No Value	No Value
	Objective 10: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.	No Value	No Value

F-Matrix Form

Changed	Questions	Current Version	Proposed Version
	Pre-algebra or equivalent (or higher), or appropriate placement beyond pre-algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.	No Value	No Value
	Objective 1: Develop, throughout the course as applicable, systematic problem solving methods.	No Value	No Value
	Objective 2: Solve problems involving arithmetic operations, including fractions, percents and decimals.	No Value	No Value
	Objective 3: Apply the order of operations to evaluate signed numerical expressions.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 4: Solve problems involving operations with signed numbers.	No Value	No Value
	Objective 5: Explore the characteristics and properties of real numbers.	No Value	No Value
	Objective 6: Use estimation to determine approximate solutions and to check the reasonableness of answers.	No Value	No Value
	Objective 7: Explore rates and ratios and use proportions to solve problems.	No Value	No Value
	Objective 8: Explore, as applicable throughout the course, the geometry of mathematical measurements and solve problems involving geometric figures and formulas.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 9: Explore the use of variables in expressions and evaluate algebraic expressions.	No Value	No Value
	Objective 10: Solve linear equations in one variable numerically and algebraically.	No Value	No Value
	Objective 11: Graph linear relationships on a Cartesian coordinate by plotting ordered pairs.	No Value	No Value
	Objective 12: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.	No Value	No Value

G-Matrix Form

Changed	Questions	Current Version	Proposed Version
	If the requisite does not fall under an A-F Matrix, download the Content Review Matrix G from the Reference Materials, and follow the remaining instructions on the form. If a requisite falling under Matrix G is being removed, provide an explanation as to why.	No Value	No Value

H-Matrix Form

Changed	Questions	Current Version	Proposed Version
	Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc… list the prerequisite(s) to participate in the program.	No Value	No Value
	Objective 2: For Student Cohorts, such as Honors, Puente, performance groups, intercollegiate teams, Special Projects course, etc… list the prerequisite(s) to participate in the cohort.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 3: For Prerequisites based on Government/Licensing/Certification Regulations, or legal requirements, cite the regulation that mandates a prerequisite or attach a copy of it to this form.	No Value	No Value
	Objective 4: For Prerequisites based on Health and Safety, describe the specific skills, concepts, and information without which the students would create a hazard to themselves or those around them. Also describe how students will meet those skills, i.e. such as a course.	No Value	No Value

De Anza GE Form

Changed	Questions	Current Version	Proposed Version
	Criteria 1: Present core concepts and scope that define the discipline. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Criteria 2: Foster oral and written communication and collaborative exercises. Note that this criteria has three separate pieces: oral communication, written communication, and collaborative exercises. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)	No Value	No Value
	Criteria 3: Stimulate critical thinking. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Criteria 4: Include diverse perspectives and contributions in the discipline such as: gender, culture, values, and/or societal perspectives. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)	No Value	No Value
	Criteria 5: Provide global and historical context. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Criteria 6: Use real-world or hands-on applications that will provide a context for the concepts being discussed. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)	No Value	No Value

De Anza GE - ESGC Form

Changed	Questions	Current Version	Proposed Version
	Criteria 1: Explain the interconnectivity of economic prosperity, social equity and environmental quality.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Criteria 2: Identify the most serious environmental, equity, and social justice problems globally and locally and explain their underlying causes and possible consequences.	No Value	No Value
	Criteria 3: Explain some significant ways students can make a difference in making a positive impact, locally, at a state level, or globally in making the world more environmentally sustainable and socially just.	No Value	No Value
	Criteria 4: Analyze how the well being of human society is dependent on sustainable social and ecological systems.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Criteria 5: Demonstrate an understanding of how the student's personal activities impact the environment and communities by participating in actions to create a more environmentally sustainable and equitable future.	No Value	No Value

Comments

Changed	Questions	Current Version	Proposed Version
	Stage 2: Department Chair	No Value	No Value
	Stage 3: Division Curriculum Representative	No Value	No Value
	Stage 4: Division Dean	No Value	No Value

Changed	Questions	Current Version	Proposed Version
❗	**Stage 5: SLO Coordinator**	No Value	<table><tr><th>DATE</th><th>Name - Role OR Tab</th><th>Part - Field</th><th>Type of Edit</th><th>Edit</th><th>Initiator - Indicate "Y" When Completed</th></tr><tr><td>3/20/2024</td><td>Mary Pape – SLO Coordinator</td><td>Learning Outcomes – CSLO #1</td><td>Required</td><td>Change the CSLO so that the words “Student will” are removed. Suggestion: “Explain proper refrigerant recovery, recycling, and handling procedures.”</td><td>Y</td></tr></table>
❗	**Stage 7: Content Review Matrix Liaison**	No Value	<table><tr><th>Date</th><th>Name - Role OR Tab</th><th>Part - Field</th><th>Type of Edit</th><th>Edit</th><th>Initiator - Indicate "Y" When Completed</th></tr><tr><td>4/9/24</td><td>Zack Judson</td><td>Matrix B</td><td>Required</td><td>Clarify how "defin[ing] basic refrigeration systems and components" requires students to use the multi-step process of writing (i.e. brainstorming, outlines, rough drafts, revisions, final drafts, etc.)</td><td>Y</td></tr></table>
	Stage 8: AVP - Instruction	No Value	No Value

Changed	Questions	Current Version	Proposed Version					
	Stage 9: Articulation Officer	No Value	**Date**	**Name - Role OR Tab**	**Part - Field**	**Type of Edit**	**Edit**	**Initiator - Indicate "Y" When Completed**
			05/17/2024	ChristaSteiner	Specifications-Primary Texts	Required	Must have at least one primary text published within seven years of Fall 2025 to meet statewide recency requirements	Y
	Stage 11: ESGC Faculty Coordinator	No Value	No Value					
	Stage 14: Curriculum Committee	No Value	No Value					

Course Administration Codes

Articulation occurs after course approval. The following fields will not show a Proposed Version.

Changed	Field	Current Version
	Curriculum ID	AUTOD066.
	Distance Education Approved	Yes
	Board of Trustees Approval Date	
	Curriculum Committee Approval Date	
	Time to Next Review	Sep 1, 2023 12:00:00 AM

Changed	Field	Current Version
	External Review Approval Date	Sep 1, 2018 12:00:00 AM
	Course Control Number	CCC000230666

Articulation

Changed	Field	Current Version
	Course Crosswalk CRS-DEPT-NAME	
	Course Crosswalk CRS-NUMBER	

De Anza College

Change Report

05/31/2024

Summary of Changes

Section	Changed field
General Information	Faculty Initiator
General Information	Effective Term
General Information	Course Description
General Information	Course Type (CB27)
General Information	Mode of Delivery
Faculty Requirements	Discipline 1
Faculty Requirements	FSA
Specifications	Methods of Instruction
Specifications	Methods of Evaluation
Specifications	Essential Student Materials/Essential College Facilities
Specifications	Examples of Primary Texts and References
Specifications	Suggested Reading List
Learning Outcomes and Objectives	Course Objectives
Learning Outcomes and Objectives	CSLOs
Req/Adv	Advisory(ies):
Curriculum Office	Banner Start Term (202122)
Curriculum Office	Banner Division
Curriculum Office	Catalog Term (21-22)
Curriculum Office	5 Year Revision Year (2021)
Curriculum Office	Effective Quarter
Curriculum Office	Effective Year (2021)
Curriculum Office	Course Status Code

Section	Changed field
Curriculum Office	Banner Department
Curriculum Office	Course Level
Curriculum Office	College Code
Curriculum Office	CTE Status
Curriculum Office	DL Approval Date (MM/DD/YYYY)
Curriculum Office	Emergency Approval
Curriculum Office	Repeat Status (N = Not Repeatable; T = Repeatable for Max Times Only; B = Repeatable for Max Times/Units; U = Repeatable for Max Units Only; Y = Yearly Repeatable Restriction)
Curriculum Office	Repeat Type (N = Non-repeatable Credit; A = Activity/Other Repeatable; F = Family Non-repeatable Credit; G = Family Activity/Other Repeatable; L = Legally Mandated Training)
Curriculum Office	Hours Statement (Three hours lecture, three hours laboratory (72 hours total per quarter).)
Curriculum Office	Noncredit Enhanced Funding Indicator
Curriculum Office	In Service Indicator
Curriculum Office	Sports/Physical Education Course Indicator
Curriculum Office	COA Code
Curriculum Office	Fund Code
Curriculum Office	Organization Code
Curriculum Office	Account Code
Curriculum Office	Program Code
Curriculum Office	Percent
Curriculum Office	Print/No Print to Catalog
Summary of Revisions	Basic Course Information
Summary of Revisions	Specifications
Summary of Revisions	Outline

Section	Changed field
B-Matrix Form	Objective 7: Demonstrate writing as a multi-step process including attention to planning and revision.
E-Matrix Form	Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.
H-Matrix Form	Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc… list the prerequisite(s) to participate in the program.
Comments	Stage 5: SLO Coordinator
Comments	Stage 7: Content Review Matrix Liaison
Comments	Stage 9: Articulation Officer
Course Justification	Course Justification
Stand-Alone Statement	Stand-Alone Statement
CTE Course	Is this a CTE (Career Technical Education) course?
Honors/Non-honors Course	Is this an honors/non-honors course?
Mirrored Credit/Noncredit Course	Is this a mirrored credit/noncredit course?
Cross-listed Course	Is this a cross-listed course?
Stand-Alone Statement	Stand-Alone Statement

General Information

Changed	Field	Current Version	Proposed Version
❗	**Faculty Initiator**	• eLumenData, eLumenData	• Xavier Silva • Johnson, Brett
	Course ID (CB01A and CB01B)	APRND066.	APRND066.
	Course Control Number	CCC000329837	CCC000329837
	Course Title (CB02)	Automotive Air Conditioning	Automotive Air Conditioning

Changed	Field	Current Version	Proposed Version
	Short Course Title	AUTO AIR CONDITIONING	AUTO AIR CONDITIONING
	TOP Code (CB03)	0948.00	0948.00 Automotive Technology
	CIP Code	Automobile/Automotive Mechanics Technology/Technician	47.0604 Automobile/Automotive Mechanics Technology/Technician
	Department	APRN - Auto. Apprenticeship	APRN - Auto. Apprenticeship
❗	**Effective Term**	Fall 2021	Fall ~~2021~~ 2025
	SAM Priority Code (CB09)	Apprenticeship	Apprenticeship
❗	**Course Description**	Operation and service of automotive air conditioning refrigeration and electrical control systems. Includes retrofitting. Emphasis on diagnosis and repair of systems. Preparation for Automotive Service Excellence (ASE) certification examination in Area A7.	~~Operation~~ This course covers the operation and service of automotive air conditioning refrigeration and electrical control systems. ~~Includes~~ This course also includes retrofitting. ~~Emphasis~~ There is an emphasis on diagnosis and repair of systems. ~~Preparation~~ This course also prepares the student for Automotive Service Excellence (ASE) certification examination in Area A7.
❗	**Course Type (CB27)**	No value	• Lower Division
❗	**Mode of Delivery**	• Online	• In person ONLY

Faculty Requirements

Changed	Field	Current Version	Proposed Version
❗	**Discipline 1**	No value	• Automotive Technology
	Discipline 2	No value	No value
	Discipline 3	No value	No value
❗	**FSA**	No value	• FHDA FSA - AUTO TECH

Course Justification

Changed	Field	Current Version	Proposed Version
	Course Justification	This is an apprenticeship course that is only offered to a target population of students who have been approved for the Automotive Technologies Apprenticeship Program. It is also intended to better prepare students for work in the automotive industry in the areas of automotive air conditioning refrigeration and electrical control systems, as advised by our industry advisory committee.	This is an apprenticeship course that is only offered to a target population of students who have been approved for the Automotive Technologies Apprenticeship Program. It is also intended to better prepare students for work in the automotive industry in the areas of ~~automotive air conditioning refrigeration~~ performance and ~~electrical control systems,~~ vehicle efficiency, as advised by our industry advisory committee.

Foothill Equivalency

Changed	Field	Current Version	Proposed Version
	Does the course have a Foothill equivalent?	No	No
	Foothill Faculty Consultation Name	No value	
	Foothill Course ID	No value	

Course Philosophy

Changed	Field	Current Version	Proposed Version
	Course Philosophy	No value	

Formerly Statement

Changed	Field	Current Version	Proposed Version
	Formerly Statement	No value	

Stand-Alone Statement

Changed	Field	Current Version	Proposed Version
	Stand-Alone Statement	No value	This course is intended to educate automotive technicians who work at a union shop so these students can complete their apprenticeship program and become journeyman technicians.

CTE Course

Changed	Field	Current Version	Proposed Version
!	**Is this a CTE (Career Technical Education) course?**	No value	Yes

Honors/Non-honors Course

Changed	Field	Current Version	Proposed Version
!	**Is this an honors/non-honors course?**	No value	No

Mirrored Credit/Noncredit Course

Changed	Field	Current Version	Proposed Version
❗	**Is this a mirrored credit/noncredit course?**	No value	Yes - don't forget to duplicate the revisions in the mirrored credit/noncredit course

Cross-listed Course

Changed	Field	Current Version	Proposed Version
❗	**Is this a cross-listed course?**	No value	No

More Options

Changed	Field	Current Version	Proposed Version
	Basic Skill Status (CB08)	Course is not a basic skills course.	Course is not a basic skills course.
	Course Prior To College Level	Not applicable.	Not applicable.
	Course Special Class Status (CB13)	Course is not a special class.	Course is not a special class.
	Course Support Status (CB26)	Course is not a support course	Course is not a support course
	Repeat Limit	0	0
	Grade Options	• Letter Grade • Pass/No Pass	• Letter Grade • Pass/No Pass
	Allow Students to Gain Credit by Exam/Challenge	☐	☐
	Repeatability Statement	No value	

Stand-Alone Statement

Changed	Field	Current Version	Proposed Version
	Stand-Alone Statement	This course has been identified as a stand-alone course, which means that it is not listed on any GE pattern and/or a certificate and degree program. Please address the following to complete this area: 1. An explanation as to why this course does not fit into a certificate/degree or GE; 2. The purpose of this course; 3. Who your audience will be.	~~This course has been identified as a stand-alone course, which means that it is not listed on any GE pattern and/or a certificate and degree program. Please address the following to complete this area: 1. An explanation as to why this course does not fit into a certificate/degree or GE; 2. The purpose of this course; 3. Who your audience will be.~~

Associated Programs

Changed	Field	Current Version	Proposed Version
	Course is part of a program	No value	No value

Transferability & Gen. Ed. Options

Changed	Field	Current Version	Proposed Version
	Transfer Status (CB05)	Transferable to CSU only	Transferable to CSU only
	Course General Education Status (CB25)	Y	Y
	Transfer Status	Approved	Approved
	GE Information	No value	No value

Weekly Student Hours - Profile Name: Default Profile

Changed	Field	Current Version	Proposed Version
	Lecture Hours - In Class	4.5	4.5

Changed	Field	Current Version	Proposed Version
	Lecture Hours - Out of Class	9	9
	Laboratory Hours - In Class	0	0
	Laboratory Hours - Out of Class	0	0
	NA Hours - In Class	0	0
	NA Hours - Out of Class	0	0

Course Student Hours - Profile Name: Default Profile

Changed	Field	Current Version	Proposed Version
	Course Duration (Weeks)	12	12
	Hours per unit divisor	36	36
	Total Student Learning Hours	162	162
	Lecture Hours - Course In-Class (Contact) per Term	54	54
	Lecture Hours - Course Out-of-Class per Term	108	108
	Laboratory Hours - Course In-Class (Contact) per Term	0	0

Changed	Field	Current Version	Proposed Version
	Laboratory Hours - Course Out-of-Class per Term	0	0
	NA Hours - Course In-Class (Contact) per Term	0	0
	NA Hours - Course Out-of-Class per Term	0	0
	Total - Course In-Class (Contact) Hours	54	54
	Total - Course Out-of-Class Hours	108	108
	Total Credit Units - Minimum Credit Units	4.5	4.5
	Total Credit Units - Maximum Credit Units	4.5	4.5

Speciality Hours

Changed	Field	Current Version	Proposed Version
	Speciality Hours	No value	No value

Credit / Non-Credit Options

Changed	Field	Current Version	Proposed Version
	COURSE CLASSIFICATION STATUS	Credit Course.	Credit Course.
	Course Credit Status (CB04)	Credit - Degree Applicable	Credit - Degree Applicable
	Course Non Credit Category (CB22)	Credit Course.	Credit Course.
	Funding Agency Category (CB23)	Not Applicable.	Not Applicable.
	Cooperative Work Experience Education Status (CB10)	☐	☐
	Variable Credit Course	☐	☐

Credit Units

Changed	Field	Current Version	Proposed Version
	Course Duration (Weeks)	12	12
	Total Lecture Hours per Term	162	162
	Total Laboratory Hours per Term	-	0
	Total Contact Hours per Term	-	0
	Total Credit Units	4.5	4.5
	Minimum Credit Units	4.5	4.5

Changed	Field	Current Version	Proposed Version
	Maximum Credit Units	4.5	4.5

SKIP

Changed	Field	Current Version	Proposed Version
	SKIP	No Value	No Value

Specifications

Changed	Field	Current Version	Proposed Version
❗	**Methods of Instruction**	**Methods of Instruction** **Methods of Instruction**: Lecture and visual aids Discussion of assigned reading Discussion and problem solving performed in class Quiz and examination review performed in class	**Methods of Instruction**: Methods of Instruction **Methods of Instruction**: Lecture and visual aids Discussion of assigned reading Discussion and problem solving performed in class Quiz and examination review performed in class
	Assignments	1. Reading from texts and handouts 2. Performance research paper	1. Reading from texts and handouts 2. Performance research paper

Changed	Field	Current Version	Proposed Version
❗	**Methods of Evaluation**	**Methods of Evaluation** **Methods of Evaluation** 1. Final exam consisting of multiple-choice questions that requires the students to identify and diagnose automotive air conditioning refrigeration and electrical control systems. 2. Five multiple choice examinations, each focused on the areas of automotive air conditioning to be evaluated for correctness. 3. Performance research assignment paper focusing on an area of interest related to one of the course objectives to be evaluated for the comprehensive understanding of air conditioning systems.	**Methods of Evaluation** Methods of Evaluation **Methods of Evaluation** 1. Final exam consisting of multiple-choice questions that requires the students to identify and diagnose automotive air conditioning refrigeration and electrical control systems. 2. Weekly multiple choice examinations, each focused on the areas of automotive air conditioning to be evaluated for correctness. 3. Performance research assignment paper focusing on an area of interest related to one of the course objectives to be evaluated for the comprehensive understanding of air conditioning systems.

Changed	Field	Current Version	Proposed Version
❗	**Essential Student Materials/Essential College Facilities**	**Essential Student Materials:** • Safety glasses for lab demonstrations **Essential College Facilities:** • Classroom and access to automotive laboratory for demonstrations • Internet access	**Essential Student Materials:** • Safety glasses for lab demonstrations **Essential College Facilities:** • Classroom and access to automotive laboratory for demonstrations • All DATA electronic information system www.alldata.com • Mitchell on-demand electronic information system www.mitchell1.com
❗	**Examples of Primary Texts and References**	**Title** No value **Author** Automotive Heating and Air Conditioning 5nd Edition, Birch 2010. **Publisher** No value **Date/Edition** No value **ISBN** No value	**Title** Automotive Heating and Air Conditioning **Author** James D. Halderman **Publisher** Pearson **Date/Edition** 9th Edition, 2023 **ISBN** No value

Changed	Field	Current Version	Proposed Version
!	**Suggested Reading List**	**Reading List**: All DATA electronic information system www.alldata.com **May include, but are not limited to**: No value **Reading List**: Mitchell on demand electronic information system www.mitchell1.com **May include, but are not limited to**: No value **Reading List**: Manufacturer's shop manuals as required **May include, but are not limited to**: No value	No value

Learning Outcomes and Objectives

Changed	Field	Current Version	Proposed Version
❗	**Course Objectives**	• Define basic refrigeration systems and components • Demonstrate the procedure for charging and evacuating the air conditioning system • Define electrical control of compressor and blower • Define electrical and vacuum controls • Demonstrate diagnosis and repair procedures • Evaluate retro-fit procedures for specific applications • Understand test and repair equipment	• Define basic refrigeration systems and components • Demonstrate the procedure for charging and evacuating the air conditioning system • Define electrical control of compressor and blower • Define electrical and vacuum controls • Demonstrate diagnosis and repair procedures • Evaluate retro-fit procedures for specific applications • Define test and repair equipment
❗	**CSLOs**	**CSLOs**: Students will understand proper refrigerant recovery, recycling, and handling procedures. **Expected SLO Performance**: 0.0	**CSLOs**: Explain proper refrigerant recovery, recycling, and handling procedures. **Expected SLO Performance**: 0.0

Course Outline

Changed	Field	Current Version	Proposed Version
❗	**Course Content**	1. Define basic refrigeration systems and components 1. Theory of operation 2. Compressor 3. Condenser 4. Receiver/drier 5. Expansion valve or tube 6. Evaporator 7. Thermostatic control switch 8. Pressure cycling switch 9. System control devices 2. Demonstrate the procedure for charging and evacuating the air conditioning system 1. System charging 2. Evacuation 3. Leak detection 4. Refrigerant recovery 3. Define electrical control of compressor and blower 1. Diagnostic procedure 2. Different types of control circuits 4. Define electrical and vacuum controls 1. Vacuum circuitry 2. Diagnosis procedure of vacuum circuits 3. Electrical and electronic controls 5. Demonstrate diagnosis and repair procedures 1. Diagnosis of problems 2. Component repair and replacement 6. Evaluate retro-fit procedures for specific applications 1. When recommended 2. Legal requirements 3. Performance requirements 7. Understand test and repair equipment 1. Leak detector 2. Gauge set 3. Electronic testers 4. Specialty wrenches and tools	1. Define basic refrigeration systems and components 1. Theory of operation 2. Compressor 3. Condenser 4. Receiver/drier 5. Expansion valve or tube 6. Evaporator 7. Thermostatic control switch 8. Pressure cycling switch 9. System control devices 2. Demonstrate the procedure for charging and evacuating the air conditioning system 1. System charging 2. Evacuation 3. Leak detection 4. Refrigerant recovery 3. Define electrical control of compressor and blower 1. Diagnostic procedure 2. Different types of control circuits 4. Define electrical and vacuum controls 1. Vacuum circuitry 2. Diagnosis procedure of vacuum circuits 3. Electrical and electronic controls 4. Calculate resistance values of sensor components 5. Demonstrate diagnosis and repair procedures 1. Diagnosis of problems 2. Component repair and replacement 6. Evaluate retro-fit procedures for specific applications 1. When recommended 2. Legal requirements 3. Performance requirements 7. Define test and repair equipment 1. Leak detector 2. Gauge set 3. Electronic testers 4. Specialty wrenches and tools

Changed	Field	Current Version	Proposed Version
	Lab Component in this Course	No	No
	Lab Outline	No value	No value

Req/Adv

Changed	Questions	Current Version	Proposed Version
	Prerequisite(s):	No Value	No Value
	Corequisite(s):	No Value	No Value
❗	**Advisory(ies):**	No Value	ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra
	Advisory(ies) - Other:	No Value	No Value
	Limitation(s) on Enrollment:	(Open only to apprentices in the Automotive Technologies Apprenticeship Program (an approved program by the Division of Apprenticeship Standards).)	(Open only to apprentices in the Automotive Technologies Apprenticeship Program (an approved program by the Division of Apprenticeship Standards).)
	Limitation(s) on Enrollment - Other:	No Value	No Value
	Entrance Skills(s):	No Value	No Value
	Entrance Skill(s) - Other:	No Value	No Value
	General Course Statement(s):	No Value	No Value
	General Course Statement(s) - Other:	No Value	No Value

Curriculum Office

Changed	Questions	Current Version	Proposed Version
❗	**Banner Start Term (202122)**	202122	No Value
❗	**Banner Division**	2AT	No Value
❗	**Catalog Term (21-22)**	21-22	No Value
❗	**5 Year Revision Year (2021)**	2018	No Value
❗	**Effective Quarter**	Fall	No Value
❗	**Effective Year (2021)**	2013	No Value
	Sort ID (00 < 10; 0 < 100)	APRN 066	APRN 066
	Course Status	Non-substantial	Non-substantial
❗	**Course Status Code**	A	No Value
❗	**Banner Department**	AUTO	No Value
❗	**Course Level**	DU	No Value
❗	**College Code**	DA	No Value
	Course Characteristics	CTE	CTE
	Cross-Listed/Related Course Information	NA	NA
	Cross-Listed/Related Course ID's	No Value	No Value
❗	**CTE Status**	Yes	No Value

Changed	Questions	Current Version	Proposed Version
❗	**DL Approval Date (MM/DD/YYYY)**	10/27/2020	No Value
	Hybrid Approval Date (MM/DD/YYYY)	No Value	No Value
❗	**Emergency Approval**	DL	No Value
❗	**Repeat Status (N = Not Repeatable; T = Repeatable for Max Times Only; B = Repeatable for Max Times/Units; U = Repeatable for Max Units Only; Y = Yearly Repeatable Restriction)**	N	No Value
❗	**Repeat Type (N = Non-repeatable Credit; A = Activity/Other Repeatable; F = Family Non-repeatable Credit; G = Family Activity/Other Repeatable; L = Legally Mandated Training)**	N	No Value
❗	**Hours Statement (Three hours lecture, three hours laboratory (72 hours total per quarter).)**	Four and one-half hours lecture (54 hours total per quarter).	No Value

Changed	Questions	Current Version	Proposed Version
!	**Noncredit Enhanced Funding Indicator**	N	No Value
!	**In Service Indicator**	N	No Value
!	**Sports/Physical Education Course Indicator**	N	No Value
!	**COA Code**	C	No Value
!	**Fund Code**	114000	No Value
!	**Organization Code**	236503	No Value
!	**Account Code**	1320	No Value
!	**Program Code**	094800	No Value
!	**Percent**	100	No Value
	Curriculum Office Notes	No Value	No Value
!	**Print/No Print to Catalog**	Yes	No Value

Summary of Revisions

Changed	Questions	Current Version	Proposed Version
!	**Basic Course Information**	No Value	Description update Course justification update
	Units and Hours	No Value	No Value
!	**Specifications**	No Value	Updated textbooks and references to reflect current publications
!	**Outline**	No Value	Updated course objective(s) Updated content within course objective(s)

Changed	Questions	Current Version	Proposed Version
	Other	No Value	No Value

Blue Form

Changed	Questions	Current Version	Proposed Version
	For changes to the units and hours tab; 1) Contact the Curriculum Office at curriculum@fhda.edu with the course information changes; and 2) address items 1-3 below. Please be aware that load factors and seat counts are assigned based on established, negotiated values.	No Value	No Value
	1. Is the unit(s) change required for articulation?	No Value	No Value
	2. If the course is UC or CSU transferable, identify one UC or CSU campus with the same unit value requested and copy and paste the catalog description of the course.	No Value	No Value
	3. Identify the areas in the course outline of record that justify the unit(s) and/or hour(s) change.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Office Use ONLY: For a REVISION, state the existing unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.	No Value	No Value
	Office Use ONLY: For a REVISION, state the new unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.	No Value	No Value
	Office Use ONLY: For NEW, state the unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.	No Value	No Value

A-Matrix Form

Changed	Questions	Current Version	Proposed Version
	EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 1: Analyze college level texts and discourse that are culturally and rhetorically diverse.	No Value	No Value
	Objective 2: Compose essays drawn from personal experience and assigned texts.	No Value	No Value
	Objective 3: Utilize MLA guidelines to format essays, cite sources, and compile a works cited page.	No Value	No Value
	Objective 4: Create syntactically varied sentences that are free of mechanical errors.	No Value	No Value
	Objective 5: Distinguish, compare, and evaluate the multiplicity and ambiguity of perspectives.	No Value	No Value

B-Matrix Form

Changed	Questions	Current Version	Proposed Version
	ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.	No Value	No Value
	Objective 1: Analyze a variety of college-level texts with a focus predominantly on expository and argumentative writing.	No Value	No Value
	Objective 2: Develop analytical ideas and topics for essays.	No Value	No Value
	Objective 3: Compose and support thesis statements for analytical essays.	No Value	No Value
	Objective 4: Develop clear sequential relationship between central argument/controlling idea and supporting ideas in writing.	No Value	No Value
	Objective 5: Identify and practice writing for different audiences and purposes.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 6: Develop and demonstrate a variety of rhetorical strategies to develop strong analysis in essays.	No Value	No Value
❗	**Objective 7: Demonstrate writing as a multi-step process including attention to planning and revision.**	No Value	From outline: A. Define basic refrigeration systems and components Create a workflow in order of which refrigerant travels through an automotive air conditioning system in the order necessary to function properly. Describe the processes that must happen to create temperature delta and how the refrigerant change in state is necessary to each step of the workflow. Explain each component and its role in refrigeration systems.
	Objective 8: Practice composing organized, developed, analytical essays that increase in complexity.	No Value	No Value
	Objective 9: Demonstrate appropriate grammar usage and mechanics.	No Value	No Value

C-Matrix Form

Changed	Questions	Current Version	Proposed Version
	ESL D261. and ESL D265., or ESL D461. and ESL D465., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.	No Value	No Value
	Objective 1: Create compositions about fiction and non-fiction texts from many cultural and social perspectives in a variety of genres.	No Value	No Value
	Objective 2: Compose a focused, purposeful, developed paper of 500 words or more that engages with, responds to, or is inspired by written or visual texts.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 3: Produce written work using a cyclical process of multiples drafts and revisions.	No Value	No Value
	Objective 4: Demonstrate the ability to include a variety of sentence structures in writing.	No Value	No Value
	Objective 5: Edit compositions to correct errors in the major conventions of Standard Written English.	No Value	No Value

D-Matrix Form

Changed	Questions	Current Version	Proposed Version
	Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.	No Value	No Value
	Objective 1: Plan, implement, and assess work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.	No Value	No Value
	Objective 2: Investigate the use of mathematics in real world.	No Value	No Value
	Objective 3: Explore functions.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 4: Develop linear function models.	No Value	No Value
	Objective 5: Use systems of two linear equations to solve real world problems.	No Value	No Value
	Objective 6: Use linear inequalities in one variable to solve real world problems.	No Value	No Value
	Objective 7: Examine exponential expressions and develop exponential function models.	No Value	No Value
	Objective 8: Examine logarithmic expressions and develop logarithmic function models.	No Value	No Value
	Objective 9: Develop quadratic function models to solve problems.	No Value	No Value
	Objective 10: Investigate the characteristics of rational expressions.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 11: Develop skills to work with radical expressions.	No Value	No Value

E-Matrix Form

Changed	Questions	Current Version	Proposed Version
	Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.	No Value	No Value
❗	**Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.**	No Value	From outline: A. Define electrical and vacuum controls 4. Calculate resistance values of sensor components

Changed	Questions	Current Version	Proposed Version
	Objective 2: Explore the function concept algebraically, numerically, verbally and graphically.	No Value	No Value
	Objective 3: Explore the graphical and numerical characteristics of linear relationships and describe their meaning in the context of a problem.	No Value	No Value
	Objective 4: Develop linear function models to solve problems.	No Value	No Value
	Objective 5: Use systems of two linear equations to solve real-world problems.	No Value	No Value
	Objective 6: Explore the graphical and numerical characteristics of quadratic relationships and describe their meaning in the context of a problem.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 7: Develop quadratic function models to solve problems.	No Value	No Value
	Objective 8: Use inequalities to solve real world problems.	No Value	No Value
	Objective 9: Explore arithmetic sequences and series.	No Value	No Value
	Objective 10: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.	No Value	No Value

F-Matrix Form

Changed	Questions	Current Version	Proposed Version
	Pre-algebra or equivalent (or higher), or appropriate placement beyond pre-algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.	No Value	No Value
	Objective 1: Develop, throughout the course as applicable, systematic problem solving methods.	No Value	No Value
	Objective 2: Solve problems involving arithmetic operations, including fractions, percents and decimals.	No Value	No Value
	Objective 3: Apply the order of operations to evaluate signed numerical expressions.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 4: Solve problems involving operations with signed numbers.	No Value	No Value
	Objective 5: Explore the characteristics and properties of real numbers.	No Value	No Value
	Objective 6: Use estimation to determine approximate solutions and to check the reasonableness of answers.	No Value	No Value
	Objective 7: Explore rates and ratios and use proportions to solve problems.	No Value	No Value
	Objective 8: Explore, as applicable throughout the course, the geometry of mathematical measurements and solve problems involving geometric figures and formulas.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 9: Explore the use of variables in expressions and evaluate algebraic expressions.	No Value	No Value
	Objective 10: Solve linear equations in one variable numerically and algebraically.	No Value	No Value
	Objective 11: Graph linear relationships on a Cartesian coordinate by plotting ordered pairs.	No Value	No Value
	Objective 12: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.	No Value	No Value

G-Matrix Form

Changed	Questions	Current Version	Proposed Version
	If the requisite does not fall under an A-F Matrix, download the Content Review Matrix G from the Reference Materials, and follow the remaining instructions on the form. If a requisite falling under Matrix G is being removed, provide an explanation as to why.	No Value	No Value

H-Matrix Form

Changed	Questions	Current Version	Proposed Version
❗	**Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc… list the prerequisite(s) to participate in the program.**	No Value	Employed by the local 1101 union or the City of San Jose. Open only to apprentices in the Automotive Technology Apprenticeship Program, and approved program by the Division of Apprenticeship Standards.
	Objective 2: For Student Cohorts, such as Honors, Puente, performance groups, intercollegiate teams, Special Projects course, etc… list the prerequisite(s) to participate in the cohort.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 3: For Prerequisites based on Government/Licensing/Certification Regulations, or legal requirements, cite the regulation that mandates a prerequisite or attach a copy of it to this form.	No Value	No Value
	Objective 4: For Prerequisites based on Health and Safety, describe the specific skills, concepts, and information without which the students would create a hazard to themselves or those around them. Also describe how students will meet those skills, i.e. such as a course.	No Value	No Value

De Anza GE Form

Changed	Questions	Current Version	Proposed Version
	Criteria 1: Present core concepts and scope that define the discipline. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Criteria 2: Foster oral and written communication and collaborative exercises. Note that this criteria has three separate pieces: oral communication, written communication, and collaborative exercises. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)	No Value	No Value
	Criteria 3: Stimulate critical thinking. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Criteria 4: Include diverse perspectives and contributions in the discipline such as: gender, culture, values, and/or societal perspectives. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)	No Value	No Value
	Criteria 5: Provide global and historical context. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Criteria 6: Use real-world or hands-on applications that will provide a context for the concepts being discussed. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)	No Value	No Value

De Anza GE - ESGC Form

Changed	Questions	Current Version	Proposed Version
	Criteria 1: Explain the interconnectivity of economic prosperity, social equity and environmental quality.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Criteria 2: Identify the most serious environmental, equity, and social justice problems globally and locally and explain their underlying causes and possible consequences.	No Value	No Value
	Criteria 3: Explain some significant ways students can make a difference in making a positive impact, locally, at a state level, or globally in making the world more environmentally sustainable and socially just.	No Value	No Value
	Criteria 4: Analyze how the well being of human society is dependent on sustainable social and ecological systems.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Criteria 5: Demonstrate an understanding of how the student's personal activities impact the environment and communities by participating in actions to create a more environmentally sustainable and equitable future.	No Value	No Value

Comments

Changed	Questions	Current Version	Proposed Version
	Stage 2: Department Chair	No Value	No Value
	Stage 3: Division Curriculum Representative	No Value	No Value
	Stage 4: Division Dean	No Value	No Value

Changed	Questions	Current Version	Proposed Version
!	**Stage 5: SLO Coordinator**	No Value	<table><tr><th>DATE</th><th>Name - Role OR Tab</th><th>Part - Field</th><th>Type of Edit</th><th>Edit</th><th>Initiator - Indicate "Y" When Completed</th></tr><tr><td>**3/20/2024**</td><td>Mary Pape – SLO Coordinator</td><td>Learning Outcomes – CSLO #1</td><td>Required</td><td>Change the CSLO so that the words “Student will” are removed. Suggestion: “Demonstrate proper refrigerant recovery, recycling, and handling procedures.”</td><td>Y</td></tr></table>
!	**Stage 7: Content Review Matrix Liaison**	No Value	<table><tr><th>Date</th><th>Name - Role OR Tab</th><th>Part - Field</th><th>Type of Edit</th><th>Edit</th><th>Initiator - Indicate "Y" When Completed</th></tr><tr><td>**4/15/24**</td><td>Zack Judson</td><td>Matrix H</td><td>Required</td><td>List prerequisite for being in the apprenticeship program</td><td>Y</td></tr><tr><td>**4/15/24**</td><td>zj</td><td>Matrix B</td><td>Required</td><td>Clarify how "Defin[ing] basic refrigeration systems and components" requires students to use the multi-step process of writing (outline, rough draft, revisions, final draft, etc.)</td><td>Y</td></tr></table>
	Stage 8: AVP - Instruction	No Value	No Value

Changed	Questions	Current Version	Proposed Version					
	Stage 9: Articulation Officer	No Value	**Date**	**Name - Role OR Tab**	**Part - Field**	**Type of Edit**	**Edit**	**Initiator - Indicate "Y" When Completed**
			05/15/2024	ChristaSteiner	Specifications-Primary Texts	Required	At least one primary text must be from within 7 years of the posted start date (Fall 2025) to meet recency requirements; Can you check to see if this text has an updated edition?	Y
	Stage 11: ESGC Faculty Coordinator	No Value	No Value					
	Stage 14: Curriculum Committee	No Value	No Value					

Course Administration Codes

Articulation occurs after course approval. The following fields will not show a Proposed Version.

Changed	Field	Current Version
	Curriculum ID	APRND066.
	Distance Education Approved	Yes
	Board of Trustees Approval Date	
	Curriculum Committee Approval Date	

Changed	Field	Current Version
	Time to Next Review	Aug 31, 2023 12:00:00 AM
	External Review Approval Date	Sep 1, 2018 12:00:00 AM
	Course Control Number	CCC000329837

Articulation

Changed	Field	Current Version
	Course Crosswalk CRS-DEPT-NAME	
	Course Crosswalk CRS-NUMBER	

De Anza College

Change Report

05/31/2024

Summary of Changes

Section	Changed field
General Information	Faculty Initiator
General Information	Effective Term
General Information	Course Description
General Information	Course Type (CB27)
General Information	Mode of Delivery
Faculty Requirements	Discipline 1
Faculty Requirements	FSA
Specifications	Methods of Instruction
Specifications	Methods of Evaluation
Specifications	Examples of Primary Texts and References
Specifications	Suggested Reading List
Learning Outcomes and Objectives	CSLOs
Curriculum Office	Banner Start Term (202122)
Curriculum Office	Banner Division
Curriculum Office	Catalog Term (21-22)
Curriculum Office	5 Year Revision Year (2021)
Curriculum Office	Effective Quarter
Curriculum Office	Effective Year (2021)
Curriculum Office	Course Status Code
Curriculum Office	Banner Department
Curriculum Office	Course Level

Section	Changed field
Curriculum Office	College Code
Curriculum Office	CTE Status
Curriculum Office	Emergency Approval
Curriculum Office	Repeat Status (N = Not Repeatable; T = Repeatable for Max Times Only; B = Repeatable for Max Times/Units; U = Repeatable for Max Units Only; Y = Yearly Repeatable Restriction)
Curriculum Office	Repeat Type (N = Non-repeatable Credit; A = Activity/Other Repeatable; F = Family Non-repeatable Credit; G = Family Activity/Other Repeatable; L = Legally Mandated Training)
Curriculum Office	Noncredit Enhanced Funding Indicator
Curriculum Office	In Service Indicator
Curriculum Office	Sports/Physical Education Course Indicator
Curriculum Office	COA Code
Curriculum Office	Fund Code
Curriculum Office	Organization Code
Curriculum Office	Account Code
Curriculum Office	Program Code
Curriculum Office	Percent
Curriculum Office	Print/No Print to Catalog
B-Matrix Form	Objective 4: Develop clear sequential relationship between central argument/controlling idea and supporting ideas in writing.
E-Matrix Form	Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.
Comments	Stage 5: SLO Coordinator
Comments	Stage 7: Content Review Matrix Liaison
Stand-Alone Statement	Stand-Alone Statement
CTE Course	Is this a CTE (Career Technical Education) course?

Section	Changed field
Honors/Non-honors Course	Is this an honors/non-honors course?
Mirrored Credit/Noncredit Course	Is this a mirrored credit/noncredit course?
Cross-listed Course	Is this a cross-listed course?

General Information

Changed	Field	Current Version	Proposed Version
!	**Faculty Initiator**	• Mike Appio	• Dave Capitolo
	Course ID (CB01A and CB01B)	AUTOD067G	AUTOD067G
	Course Control Number	CCC000592138	CCC000592138
	Course Title (CB02)	Gaseous Fuels	Gaseous Fuels
	Short Course Title	GASEOUS FUELS	GASEOUS FUELS
	TOP Code (CB03)	0948.40	0948.40 Alternative Fuels and Advanced Transportation Technology
	CIP Code	Alternative Fuel Vehicle Technology/Technician	47.0614 Alternative Fuel Vehicle Technology/Technician
	Department	AUTO - Automotive Technology	AUTO - Automotive Technology
!	**Effective Term**	Fall 2023	Fall ~~2023~~ 2025
	SAM Priority Code (CB09)	Advanced Occupational	Advanced Occupational

Changed	Field	Current Version	Proposed Version
❗	**Course Description**	Gaseous fuels include propane, compressed natural gas, liquefied natural gas and hydrogen. Propane has been used as an engine fuel for over 80-years. After gasoline and diesel, it is the third most popular fuel. It is used to power over four million vehicles. Compressed natural gas and liquefied natural gas are being used in many fleet applications and have a large pipeline distribution system. Hydrogen is used in a fuel cell to create electricity and expels water. Two major automobile manufacturers have introduced hydrogen powered cars. As a society we are moving towards having humans have less of an impact on our environment and the gaseous fuel are a big part of the movement.	This course pertains to Gaseous ~~fuels~~ fuels, which include ~~propane, compressed natural gas,~~ Propane, Compressed Natural Gas, liquefied ~~natural gas~~ Natural Gas and hydrogen. Propane has been used as an engine fuel for over ~~80-years.~~ 80 years. After gasoline and ~~diesel,~~ diesel it is the third most popular fuel. It is used to ~~power~~ powers over four million vehicles. Compressed ~~natural gas and~~ Natural Gas, liquefied ~~natural gas~~ Natural Gas are being used in many fleet applications and have a large pipeline distribution system. Hydrogen is used in a fuel cell to create electricity and expels water. ~~Two major automobile manufacturers have introduced hydrogen powered cars. As a society we are moving towards having humans have less~~ This course covers the basic theory of ~~an impact on our environment~~ these gasses and the ~~gaseous fuel are a big part of the movement.~~ safety related to them
❗	**Course Type (CB27)**	No value	• Lower Division
❗	**Mode of Delivery**	• NA	• In person ONLY

Faculty Requirements

Changed	Field	Current Version	Proposed Version
❗	**Discipline 1**	No value	• Automotive Technology
	Discipline 2	No value	No value
	Discipline 3	No value	No value
❗	**FSA**	No value	• FHDA FSA - AUTO TECH

Formerly Statement

Changed	Field	Current Version	Proposed Version
	Formerly Statement	No value	

Course Justification

Changed	Field	Current Version	Proposed Version
	Course Justification	This is a CSU transferable, stand-alone course. It is intended to better prepare students for work in the automotive industry in the areas of Gaseous fuels systems, as advised by our industry advisory committee.	This is a CSU transferable, stand-alone course. It is intended to better prepare students for work in the automotive industry in the areas of Gaseous fuels systems, as advised by our industry advisory committee.

Stand-Alone Statement

Changed	Field	Current Version	Proposed Version
	Stand-Alone Statement	No value	This course is designed to prepare students for work in emerging fields in the automotive industry and is not yet part of a certificate or degree.

Course Philosophy

Changed	Field	Current Version	Proposed Version
	Course Philosophy	No value	

Foothill Equivalency

Changed	Field	Current Version	Proposed Version
	Does the course have a Foothill equivalent?	No	No
	Foothill Faculty Consultation Name	No value	
	Foothill Course ID	No value	

CTE Course

Changed	Field	Current Version	Proposed Version
!	**Is this a CTE (Career Technical Education) course?**	No value	Yes

Honors/Non-honors Course

Changed	Field	Current Version	Proposed Version
!	**Is this an honors/non-honors course?**	No value	No

Mirrored Credit/Noncredit Course

Changed	Field	Current Version	Proposed Version
!	**Is this a mirrored credit/noncredit course?**	No value	Yes - don't forget to duplicate the revisions in the mirrored credit/noncredit course

Cross-listed Course

Changed	Field	Current Version	Proposed Version
!	**Is this a cross-listed course?**	No value	No

More Options

Changed	Field	Current Version	Proposed Version
	Basic Skill Status (CB08)	Course is not a basic skills course.	Course is not a basic skills course.
	Course Prior To College Level	Not applicable.	Not applicable.
	Course Special Class Status (CB13)	Course is not a special class.	Course is not a special class.
	Course Support Status (CB26)	Course is not a support course	Course is not a support course
	Repeat Limit	0	0
	Grade Options	• Letter Grade • Pass/No Pass	• Letter Grade • Pass/No Pass
	Allow Students to Gain Credit by Exam/Challenge	☐	☐
	Repeatability Statement	No value	

Associated Programs

Changed	Field	Current Version	Proposed Version
	Course is part of a program	No value	No value

Transferability & Gen. Ed. Options

Changed	Field	Current Version	Proposed Version
	Transfer Status (CB05)	Transferable to CSU only	Transferable to CSU only
	Course General Education Status (CB25)	Y	Y
	Transfer Status	Approved	Approved
	GE Information	No value	No value

Weekly Student Hours - Profile Name: Default Profile

Changed	Field	Current Version	Proposed Version
	Lecture Hours - In Class	4.5	4.5
	Lecture Hours - Out of Class	9	9
	Laboratory Hours - In Class	0	0
	Laboratory Hours - Out of Class	0	0

Changed	Field	Current Version	Proposed Version
	NA Hours - In Class	0	0
	NA Hours - Out of Class	0	0

Course Student Hours - Profile Name: Default Profile

Changed	Field	Current Version	Proposed Version
	Course Duration (Weeks)	12	12
	Hours per unit divisor	36	36
	Total Student Learning Hours	162	162
	Lecture Hours - Course In-Class (Contact) per Term	54	54
	Lecture Hours - Course Out-of-Class per Term	108	108
	Laboratory Hours - Course In-Class (Contact) per Term	0	0
	Laboratory Hours - Course Out-of-Class per Term	0	0

Changed	Field	Current Version	Proposed Version
	NA Hours - Course In-Class (Contact) per Term	0	0
	NA Hours - Course Out-of-Class per Term	0	0
	Total - Course In-Class (Contact) Hours	54	54
	Total - Course Out-of-Class Hours	108	108
	Total Credit Units - Minimum Credit Units	4.5	4.5
	Total Credit Units - Maximum Credit Units	4.5	4.5

Speciality Hours

Changed	Field	Current Version	Proposed Version
	Speciality Hours	No value	No value

Credit / Non-Credit Options

Changed	Field	Current Version	Proposed Version
	COURSE CLASSIFICATION STATUS	Credit Course.	Credit Course.
	Course Credit Status (CB04)	Credit - Degree Applicable	Credit - Degree Applicable
	Course Non Credit Category (CB22)	Credit Course.	Credit Course.
	Funding Agency Category (CB23)	Not Applicable.	Not Applicable.
	Cooperative Work Experience Education Status (CB10)	☐	☐
	Variable Credit Course	☐	☐

Credit Units

Changed	Field	Current Version	Proposed Version
	Course Duration (Weeks)	12	12
	Total Lecture Hours per Term	162	162
	Total Laboratory Hours per Term	-	0
	Total Contact Hours per Term	-	0
	Total Credit Units	4.5	4.5

Changed	Field	Current Version	Proposed Version
	Minimum Credit Units	4.5	4.5
	Maximum Credit Units	4.5	4.5

SKIP

Changed	Field	Current Version	Proposed Version
	SKIP	No Value	No Value

Specifications

Changed	Field	Current Version	Proposed Version
❗	**Methods of Instruction**	**Methods of Instruction** **Methods of Instruction**: Lecture and visual aids Discussion of assigned reading Discussion and problem solving performed in class Quiz and examination review performed in class Collaborative learning and small group exercises	**Methods of Instruction**: Methods of Instruction **Methods of Instruction**: Lecture and visual aids Discussion of assigned reading Discussion and problem solving performed in class Quiz and examination review performed in class Collaborative learning and small group exercises

Changed	Field	Current Version	Proposed Version
❗	**Assignments**	1. Reading material provided on Course Management System 2. Safety Test to insure personal responsibility in a shop setting 3. 7 worksheets focusing on reading material and problem solving. The worksheets include multiple choice and written sections. 4. Quizzes and tests with clear outcomes that test knowledge retention	1. Reading material provided on Course Management System 2. Safety Test to ensure personal responsibility in a shop setting 3. 7 worksheets focusing on reading material and problem solving. The worksheets include multiple choice and written sections. 4. Quizzes and tests with clear outcomes that test knowledge retention
❗	**Methods of Evaluation**	**Methods of Evaluation** **Methods of Evaluation** 1. Accuracy of data on safety test 2. Completeness of assignment on the 7 worksheets 3. Number of correct answers on multiple choice, short answer quizzes and tests	**Methods of Evaluation** Methods of Evaluation **Methods of Evaluation** 1. Accuracy of data on safety test 2. Completeness of assignment on the 7 worksheets 3. Number of correct answers on multiple choice, short answer quizzes and tests
	Essential Student Materials/Essential College Facilities	**Essential Student Materials:** • Safety glasses for lab demonstrations **Essential College Facilities:** • Space for demonstrating gaseous fuels on many different types of equipment, including trucks	**Essential Student Materials:** • Safety glasses for lab demonstrations **Essential College Facilities:** • Space for demonstrating gaseous fuels on many different types of equipment, including trucks

Changed	Field	Current Version	Proposed Version
!	**Examples of Primary Texts and References**	**Title** No value **Author** Material Provided on Course Management System **Publisher** No value **Date/Edition** No value **ISBN** No value	No value
!	**Suggested Reading List**	**Reading List** Manufacturer's manuals **May include, but are not limited to** No value **Reading List** Electronic information systems **May include, but are not limited to** No value	No value

Learning Outcomes and Objectives

Changed	Field	Current Version	Proposed Version
	Course Objectives	• Recognize gaseous fuel safety • Employ high pressure tank testing and certification • Summarize gaseous fuel • Categorize engine design required for gaseous fuels • Practice maintenance requirements for the different gaseous fuels • Discriminate fuel storage and vehicle filling	• Recognize gaseous fuel safety • Employ high pressure tank testing and certification • Summarize gaseous fuel • Categorize engine design required for gaseous fuels • Practice maintenance requirements for the different gaseous fuels • Discriminate fuel storage and vehicle filling
❗	**CSLOs**	**CSLOs**: Students will interpret the environmental affects gaseous fuel produce and which fuel has the lowest effect on our world. This will be determined with a group of questions on the final exam. **Expected SLO Performance**: 0.0	**CSLOs**: Interpret the environmental affects gaseous fuel produce and which fuel has the lowest effect on our world. This will be determined with a group of questions on the final exam. **Expected SLO Performance**: 0.0

Course Outline

Changed	Field	Current Version	Proposed Version

	Course Content	1. Recognize gaseous fuel safety
		  1. Personal Safety
		  2. Fuel storage safety
		  3. Fuel handling safety
		2. Employ high pressure tank testing and certification
		  1. Tank inspection
		  2. Tank inspection certification training
		3. Summarize gaseous fuel
		  1. Describe Propane use
		  2. Explain compressed natural gas systems
		  3. Examine hydrogen as a fuel
		4. Categorize engine design required for gaseous fuels
		  1. Propane engine design and modifications
		  2. Compressed Natural gas engine design and modifications
		  3. Fuel cell design and types used in automotive applications
		5. Practice maintenance requirements for the different gaseous fuels
		  1. Route service
		  2. Understanding the special requirement for gaseous fuels
		6. Discriminate fuel storage and vehicle filling
		  1. On site storage requirements
		  2. Filling certification
		  3. Fuel filling Station
		  4. Fuel filling troubleshooting
			1. Recognize gaseous fuel safety
			  1. Personal Safety
			  2. Fuel storage safety
			  3. Fuel handling safety
			2. Employ high pressure tank testing and certification
			  1. Tank inspection
			  2. Tank inspection certification training
			3. Summarize gaseous fuel
			  1. Describe Propane use
			  2. Explain compressed natural gas systems
			  3. Examine hydrogen as a fuel
			4. Categorize engine design required for gaseous fuels
			  1. Propane engine design and modifications
			  2. Compressed Natural gas engine design and modifications
			  3. Fuel cell design and types used in automotive applications
			5. Practice maintenance requirements for the different gaseous fuels
			  1. Route service
			  2. Understanding the special requirement for gaseous fuels
			6. Discriminate fuel storage and vehicle filling
			  1. On site storage requirements
			  2. Filling certification
			  3. Fuel filling Station
			  4. Fuel filling troubleshooting

	Lab Component in this Course	No	No
	Lab Outline	No value	No value

Req/Adv

Changed	Questions	Current Version	Proposed Version
	Prerequisite(s):	No Value	No Value
	Corequisite(s):	No Value	No Value
	Advisory(ies):	ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra	ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra
	Advisory(ies) - Other:	No Value	No Value
	Limitation(s) on Enrollment:	No Value	No Value
	Limitation(s) on Enrollment - Other:	No Value	No Value
	Entrance Skills(s):	No Value	No Value
	Entrance Skill(s) - Other:	No Value	No Value
	General Course Statement(s):	No Value	No Value
	General Course Statement(s) - Other:	No Value	No Value

Curriculum Office

Changed	Questions	Current Version	Proposed Version
❗	**Banner Start Term (202122)**	202122	No Value

Changed	Questions	Current Version	Proposed Version
❗	**Banner Division**	2AT	No Value
❗	**Catalog Term (21-22)**	23-24	No Value
❗	**5 Year Revision Year (2021)**	2018	No Value
❗	**Effective Quarter**	Fall	No Value
❗	**Effective Year (2021)**	2023	No Value
	Sort ID (00 < 10; 0 < 100)	AUTO 067G	AUTO 067G
	Course Status	New Stand-Alone	New Stand-Alone
❗	**Course Status Code**	A	No Value
❗	**Banner Department**	AUTO	No Value
❗	**Course Level**	DU	No Value
❗	**College Code**	DA	No Value
	Course Characteristics	CTE	CTE
	Cross-Listed/Related Course Information	NA	NA
	Cross-Listed/Related Course ID's	No Value	No Value
❗	**CTE Status**	Yes	No Value
	DL Approval Date (MM/DD/YYYY)	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Hybrid Approval Date (MM/DD/YYYY)	No Value	No Value
!	**Emergency Approval**	No	No Value
!	**Repeat Status (N = Not Repeatable; T = Repeatable for Max Times Only; B = Repeatable for Max Times/Units; U = Repeatable for Max Units Only; Y = Yearly Repeatable Restriction)**	N	No Value
!	**Repeat Type (N = Non-repeatable Credit; A = Activity/Other Repeatable; F = Family Non-repeatable Credit; G = Family Activity/Other Repeatable; L = Legally Mandated Training)**	N	No Value
!	**Noncredit Enhanced Funding Indicator**	N	No Value
!	**In Service Indicator**	N	No Value

Changed	Questions	Current Version	Proposed Version
❗	**Sports/Physical Education Course Indicator**	N	No Value
❗	**COA Code**	C	No Value
❗	**Fund Code**	114000	No Value
❗	**Organization Code**	236503	No Value
❗	**Account Code**	1320	No Value
❗	**Program Code**	094800	No Value
❗	**Percent**	100	No Value
	Curriculum Office Notes	• Requisite change appr. 1/17/23 (effect. F23).-cc	• Requisite change appr. 1/17/23 (effect. F23).-cc
❗	**Print/No Print to Catalog**	Yes	No Value
	Checklist	No Value	No Value

Summary of Revisions

Changed	Questions	Current Version	Proposed Version
	Basic Course Information	No Value	No Value
	Units and Hours	No Value	No Value
	Specifications	No Value	No Value
	Outline	No Value	No Value
	Other	No Value	No Value

Blue Form

Changed	Questions	Current Version	Proposed Version
	For changes to the units and hours tab; 1) Contact the Curriculum Office at curriculum@fhda.edu with the course information changes; and 2) address items 1-3 below. Please be aware that load factors and seat counts are assigned based on established, negotiated values.	No Value	No Value
	1. Is the unit(s) change required for articulation?	No Value	No Value
	2. If the course is UC or CSU transferable, identify one UC or CSU campus with the same unit value requested and copy and paste the catalog description of the course.	No Value	No Value
	3. Identify the areas in the course outline of record that justify the unit(s) and/or hour(s) change.	No Value	No Value
	Office Use ONLY: For a REVISION, state the existing unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Office Use ONLY: For a REVISION, state the new unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.	No Value	No Value
	Office Use ONLY: For NEW, state the unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.	No Value	No Value

A-Matrix Form

Changed	Questions	Current Version	Proposed Version
	EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.	No Value	No Value
	Objective 1: Analyze college level texts and discourse that are culturally and rhetorically diverse.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 2: Compose essays drawn from personal experience and assigned texts.	No Value	No Value
	Objective 3: Utilize MLA guidelines to format essays, cite sources, and compile a works cited page.	No Value	No Value
	Objective 4: Create syntactically varied sentences that are free of mechanical errors.	No Value	No Value
	Objective 5: Distinguish, compare, and evaluate the multiplicity and ambiguity of perspectives.	No Value	No Value

B-Matrix Form

Changed	Questions	Current Version	Proposed Version
	ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.	No Value	No Value
	Objective 1: Analyze a variety of college-level texts with a focus predominantly on expository and argumentative writing.	No Value	No Value
	Objective 2: Develop analytical ideas and topics for essays.	No Value	No Value
	Objective 3: Compose and support thesis statements for analytical essays.	No Value	No Value
!	**Objective 4: Develop clear sequential relationship between central argument/controlling idea and supporting ideas in writing.**	No Value	B. Summarize gaseous fuels
	Objective 5: Identify and practice writing for different audiences and purposes.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 6: Develop and demonstrate a variety of rhetorical strategies to develop strong analysis in essays.	No Value	No Value
	Objective 7: Demonstrate writing as a multi-step process including attention to planning and revision.	No Value	No Value
	Objective 8: Practice composing organized, developed, analytical essays that increase in complexity.	No Value	No Value
	Objective 9: Demonstrate appropriate grammar usage and mechanics.	No Value	No Value

C-Matrix Form

Changed	Questions	Current Version	Proposed Version
	ESL D261. and ESL D265., or ESL D461. and ESL D465., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.	No Value	No Value
	Objective 1: Create compositions about fiction and non-fiction texts from many cultural and social perspectives in a variety of genres.	No Value	No Value
	Objective 2: Compose a focused, purposeful, developed paper of 500 words or more that engages with, responds to, or is inspired by written or visual texts.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 3: Produce written work using a cyclical process of multiples drafts and revisions.	No Value	No Value
	Objective 4: Demonstrate the ability to include a variety of sentence structures in writing.	No Value	No Value
	Objective 5: Edit compositions to correct errors in the major conventions of Standard Written English.	No Value	No Value

D-Matrix Form

Changed	Questions	Current Version	Proposed Version
	Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.	No Value	No Value
	Objective 1: Plan, implement, and assess work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.	No Value	No Value
	Objective 2: Investigate the use of mathematics in real world.	No Value	No Value
	Objective 3: Explore functions.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 4: Develop linear function models.	No Value	No Value
	Objective 5: Use systems of two linear equations to solve real world problems.	No Value	No Value
	Objective 6: Use linear inequalities in one variable to solve real world problems.	No Value	No Value
	Objective 7: Examine exponential expressions and develop exponential function models.	No Value	No Value
	Objective 8: Examine logarithmic expressions and develop logarithmic function models.	No Value	No Value
	Objective 9: Develop quadratic function models to solve problems.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 10: Investigate the characteristics of rational expressions.	No Value	No Value
	Objective 11: Develop skills to work with radical expressions.	No Value	No Value

E-Matrix Form

Changed	Questions	Current Version	Proposed Version
	Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
❗	**Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.**	No Value	B. Employ high pressure tank testing and certification
	Objective 2: Explore the function concept algebraically, numerically, verbally and graphically.	No Value	No Value
	Objective 3: Explore the graphical and numerical characteristics of linear relationships and describe their meaning in the context of a problem.	No Value	No Value
	Objective 4: Develop linear function models to solve problems.	No Value	No Value
	Objective 5: Use systems of two linear equations to solve real-world problems.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 6: Explore the graphical and numerical characteristics of quadratic relationships and describe their meaning in the context of a problem.	No Value	No Value
	Objective 7: Develop quadratic function models to solve problems.	No Value	No Value
	Objective 8: Use inequalities to solve real world problems.	No Value	No Value
	Objective 9: Explore arithmetic sequences and series.	No Value	No Value
	Objective 10: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.	No Value	No Value

F-Matrix Form

Changed	Questions	Current Version	Proposed Version
	Pre-algebra or equivalent (or higher), or appropriate placement beyond pre-algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.	No Value	No Value
	Objective 1: Develop, throughout the course as applicable, systematic problem solving methods.	No Value	No Value
	Objective 2: Solve problems involving arithmetic operations, including fractions, percents and decimals.	No Value	No Value
	Objective 3: Apply the order of operations to evaluate signed numerical expressions.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 4: Solve problems involving operations with signed numbers.	No Value	No Value
	Objective 5: Explore the characteristics and properties of real numbers.	No Value	No Value
	Objective 6: Use estimation to determine approximate solutions and to check the reasonableness of answers.	No Value	No Value
	Objective 7: Explore rates and ratios and use proportions to solve problems.	No Value	No Value
	Objective 8: Explore, as applicable throughout the course, the geometry of mathematical measurements and solve problems involving geometric figures and formulas.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 9: Explore the use of variables in expressions and evaluate algebraic expressions.	No Value	No Value
	Objective 10: Solve linear equations in one variable numerically and algebraically.	No Value	No Value
	Objective 11: Graph linear relationships on a Cartesian coordinate by plotting ordered pairs.	No Value	No Value
	Objective 12: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.	No Value	No Value

G-Matrix Form

Changed	Questions	Current Version	Proposed Version
	If the requisite does not fall under an A-F Matrix, download the Content Review Matrix G from the Reference Materials, and follow the remaining instructions on the form. If a requisite falling under Matrix G is being removed, provide an explanation as to why.	No Value	No Value

H-Matrix Form

Changed	Questions	Current Version	Proposed Version
	Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc… list the prerequisite(s) to participate in the program.	No Value	No Value
	Objective 2: For Student Cohorts, such as Honors, Puente, performance groups, intercollegiate teams, Special Projects course, etc… list the prerequisite(s) to participate in the cohort.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 3: For Prerequisites based on Government/Licensing/Certification Regulations, or legal requirements, cite the regulation that mandates a prerequisite or attach a copy of it to this form.	No Value	No Value
	Objective 4: For Prerequisites based on Health and Safety, describe the specific skills, concepts, and information without which the students would create a hazard to themselves or those around them. Also describe how students will meet those skills, i.e. such as a course.	No Value	No Value

De Anza GE Form

Changed	Questions	Current Version	Proposed Version
	Criteria 1: Present core concepts and scope that define the discipline. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Criteria 2: Foster oral and written communication and collaborative exercises. Note that this criteria has three separate pieces: oral communication, written communication, and collaborative exercises. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)	No Value	No Value
	Criteria 3: Stimulate critical thinking. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Criteria 4: Include diverse perspectives and contributions in the discipline such as: gender, culture, values, and/or societal perspectives. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)	No Value	No Value
	Criteria 5: Provide global and historical context. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Criteria 6: Use real-world or hands-on applications that will provide a context for the concepts being discussed. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)	No Value	No Value

De Anza GE - ESGC Form

Changed	Questions	Current Version	Proposed Version
	Criteria 1: Explain the interconnectivity of economic prosperity, social equity and environmental quality.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Criteria 2: Identify the most serious environmental, equity, and social justice problems globally and locally and explain their underlying causes and possible consequences.	No Value	No Value
	Criteria 3: Explain some significant ways students can make a difference in making a positive impact, locally, at a state level, or globally in making the world more environmentally sustainable and socially just.	No Value	No Value
	Criteria 4: Analyze how the well being of human society is dependent on sustainable social and ecological systems.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Criteria 5: Demonstrate an understanding of how the student's personal activities impact the environment and communities by participating in actions to create a more environmentally sustainable and equitable future.	No Value	No Value

Comments

Changed	Questions	Current Version	Proposed Version
	Stage 2: Department Chair	No Value	No Value
	Stage 3: Division Curriculum Representative	No Value	No Value
	Stage 4: Division Dean	No Value	No Value

Changed	Questions	Current Version	Proposed Version					
!	**Stage 5: SLO Coordinator**	No Value	**Date**	**Name - Role OR Tab**	**Part - Field**	**Type of Edit**	**Edit**	**Initiator - Indicate "Y" When Completed**
			2/9/2024	Mary Pape - SLO Coordinator	CSLO	Required	The format of the SLO statement omits "Students will" and instead starts with the Bloom's Taxonomy word. In this case "Interpret" will be the first word of the CSLO.	Y
!	**Stage 7: Content Review Matrix Liaison**	No Value	**Date**	**Name - Role OR Tab**	**Part - Field**	**Type of Edit**	**Edit**	**Initiator - Indicate "Y" When Completed**
			3/25/24	Zack Judson	Matrix B	Required	Complete Matrix B for your English Advisory	Y
			3/25/24	Zack Judson	Matrix E	Required	Complete Matrix E for your Math Advisory	incomplete 4/4/24 - zj
	Stage 8: AVP - Instruction	No Value	No Value					
	Stage 9: Articulation Officer	No Value	No Value					
	Stage 11: ESGC Faculty Coordinator	No Value	No Value					

Changed	Questions	Current Version	Proposed Version
	Stage 14: Curriculum Committee	No Value	No Value

Course Administration Codes

Articulation occurs after course approval. The following fields will not show a Proposed Version.

Changed	Field	Current Version
	Curriculum ID	AUTOD067G
	Distance Education Approved	No
	Board of Trustees Approval Date	
	Curriculum Committee Approval Date	
	Time to Next Review	Sep 1, 2023 12:00:00 AM
	External Review Approval Date	Sep 1, 2018 12:00:00 AM
	Course Control Number	CCC000592138

Articulation

Changed	Field	Current Version

Changed	Field	Current Version
	Course Crosswalk CRS-DEPT-NAME	
	Course Crosswalk CRS-NUMBER	

De Anza College

Change Report

05/31/2024

Summary of Changes

Section	Changed field
General Information	Faculty Initiator
General Information	Effective Term
General Information	Course Description
General Information	Course Type (CB27)
General Information	Mode of Delivery
Faculty Requirements	Discipline 1
Faculty Requirements	FSA
Specifications	Methods of Instruction
Specifications	Methods of Evaluation
Specifications	Examples of Primary Texts and References
Specifications	Suggested Reading List
Learning Outcomes and Objectives	CSLOs
Curriculum Office	Banner Start Term (202122)
Curriculum Office	Banner Division
Curriculum Office	Catalog Term (21-22)
Curriculum Office	5 Year Revision Year (2021)
Curriculum Office	Effective Quarter
Curriculum Office	Effective Year (2021)
Curriculum Office	Course Status Code
Curriculum Office	Banner Department
Curriculum Office	Course Level
Curriculum Office	College Code
Curriculum Office	CTE Status
Curriculum Office	Emergency Approval
Curriculum Office	Repeat Status (N = Not Repeatable; T = Repeatable for Max Times Only; B = Repeatable for Max Times/Units; U = Repeatable for Max Units Only; Y = Yearly Repeatable Restriction)
Curriculum Office	Repeat Type (N = Non-repeatable Credit; A = Activity/Other Repeatable; F = Family Non-repeatable Credit; G = Family Activity/Other Repeatable; L = Legally Mandated Training)
Curriculum Office	Hours Statement (Three hours lecture, three hours laboratory (72 hours total per quarter).)
Curriculum Office	Noncredit Enhanced Funding Indicator
Curriculum Office	In Service Indicator
Curriculum Office	Sports/Physical Education Course Indicator
Curriculum Office	COA Code

Section	Changed field
Curriculum Office	Fund Code
Curriculum Office	Organization Code
Curriculum Office	Account Code
Curriculum Office	Program Code
Curriculum Office	Percent
Curriculum Office	Print/No Print to Catalog
Summary of Revisions	Basic Course Information
H-Matrix Form	Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc… list the prerequisite(s) to participate in the program.
Comments	Stage 5: SLO Coordinator
Comments	Stage 7: Content Review Matrix Liaison
Course Justification	Course Justification
Stand-Alone Statement	Stand-Alone Statement
CTE Course	Is this a CTE (Career Technical Education) course?
Honors/Non-honors Course	Is this an honors/non-honors course?
Mirrored Credit/Noncredit Course	Is this a mirrored credit/noncredit course?
Cross-listed Course	Is this a cross-listed course?
Stand-Alone Statement	Stand-Alone Statement

General Information

Changed	Field	Current Version	Proposed Version
❗	**Faculty Initiator**	• eLumenData, eLumenData	• Dave Capitolo
	Course ID (CB01A and CB01B)	APRND067G	APRND067G
	Course Control Number	CCC000592137	CCC000592137
	Course Title (CB02)	Gaseous Fuels	Gaseous Fuels
	Short Course Title	GASEOUS FUELS	GASEOUS FUELS
	TOP Code (CB03)	0948.40	0948.40 Alternative Fuels and Advanced Transportation Technology
	CIP Code	Alternative Fuel Vehicle Technology/Technician	47.0614 Alternative Fuel Vehicle Technology/Technician
	Department	APRN - Auto. Apprenticeship	APRN - Auto. Apprenticeship
❗	**Effective Term**	Fall 2021	Fall ~~2021~~ 2025
	SAM Priority Code (CB09)	Apprenticeship	Apprenticeship

Changed	Field	Current Version	Proposed Version
!	**Course Description**	Gaseous fuels include Propane, Compressed Natural Gas, liquefied Natural Gas and hydrogen. Propane has been used as an engine fuel for over 80 years. After gasoline and diesel it is the third most popular fuel. It is used to powers over four million vehicles. Compressed Natural Gas, liquefied Natural Gas are being used in many fleet applications and have a large pipeline distribution system. Hydrogen is used in a fuel cell to create electricity and expels water. Two major automobile manufacturers have introduced hydrogen powered cars. As a society we are moving towards having humans have less of an impact on our environment and the gaseous fuel are a big part of the movement.	This course pertains to Gaseous ~~fuels~~ fuels, which include Propane, Compressed Natural Gas, liquefied Natural Gas and hydrogen. Propane has been used as an engine fuel for over 80 years. After gasoline and diesel it is the third most popular fuel. It is used to powers over four million vehicles. Compressed Natural Gas, liquefied Natural Gas are being used in many fleet applications and have a large pipeline distribution system. Hydrogen is used in a fuel cell to create electricity and expels water. ~~Two major automobile manufacturers have introduced hydrogen powered cars. As a society we are moving towards having humans have less of an impact on our environment and~~ This course covers the ~~gaseous fuel are a big part~~ basic theory of these gasses and the ~~movement.~~ safety related to them
!	**Course Type (CB27)**	No value	• Lower Division
!	**Mode of Delivery**	• NA	• In person ONLY

Faculty Requirements

Changed	Field	Current Version	Proposed Version
!	**Discipline 1**	No value	• Automotive Technology
	Discipline 2	No value	No value
	Discipline 3	No value	No value
!	**FSA**	No value	• FHDA FSA - AUTO TECH

Course Justification

Changed	Field	Current Version	Proposed Version
	Course Justification	This is an apprenticeship course that is only offered to a target population of students who have been approved for the Automotive Technologies Apprenticeship Program. It was developed based on essential requirements for the fulfillment of NATEF (National Automotive Technician's Education Foundation) accreditation standards. It is intended to better prepare students for work in the automotive industry in the areas of Gaseous fuels systems, as advised by our industry advisory committee.	This is an apprenticeship course that is only offered to a target population of students who have been approved for the Automotive Technologies Apprenticeship Program. ~~It was developed based on essential requirements for the fulfillment of NATEF (National Automotive Technician's Education Foundation) accreditation standards.~~ It is intended to better prepare students for work in the automotive industry in the areas of Gaseous fuels systems, as advised by our industry advisory committee.

Foothill Equivalency

Changed	Field	Current Version	Proposed Version
	Does the course have a Foothill equivalent?	No	No
	Foothill Faculty Consultation Name	No value	
	Foothill Course ID	No value	

Course Philosophy

Changed	Field	Current Version	Proposed Version
	Course Philosophy	No value	

Formerly Statement

Changed	Field	Current Version	Proposed Version
	Formerly Statement	No value	

Stand-Alone Statement

Changed	Field	Current Version	Proposed Version
	Stand-Alone Statement	No value	This course is intended to educate automotive technicians who work at a union shop so these students can complete their apprenticeship program and become journeyman technicians.

CTE Course

Changed	Field	Current Version	Proposed Version
!	**Is this a CTE (Career Technical Education) course?**	No value	Yes

Honors/Non-honors Course

Changed	Field	Current Version	Proposed Version
!	**Is this an honors/non-honors course?**	No value	No

Mirrored Credit/Noncredit Course

Changed	Field	Current Version	Proposed Version
!	**Is this a mirrored credit/noncredit course?**	No value	Yes - don't forget to duplicate the revisions in the mirrored credit/noncredit course

Cross-listed Course

Changed	Field	Current Version	Proposed Version
!	**Is this a cross-listed course?**	No value	No

More Options

Changed	Field	Current Version	Proposed Version
	Basic Skill Status (CB08)	Course is not a basic skills course.	Course is not a basic skills course.

Changed	Field	Current Version	Proposed Version
	Course Prior To College Level	Not applicable.	Not applicable.
	Course Special Class Status (CB13)	Course is not a special class.	Course is not a special class.
	Course Support Status (CB26)	Course is not a support course	Course is not a support course
	Repeat Limit	0	0
	Grade Options	• Letter Grade • Pass/No Pass	• Letter Grade • Pass/No Pass
	Allow Students to Gain Credit by Exam/Challenge	☐	☐
	Repeatability Statement	No value	

Stand-Alone Statement

Changed	Field	Current Version	Proposed Version
	Stand-Alone Statement	This course has been identified as a stand-alone course, which means that it is not listed on any GE pattern and/or a certificate and degree program. Please address the following to complete this area: 1. An explanation as to why this course does not fit into a certificate/degree or GE; 2. The purpose of this course; 3. Who your audience will be.	~~This course has been identified as a stand-alone course, which means that it is not listed on any GE pattern and/or a certificate and degree program. Please address the following to complete this area: 1. An explanation as to why this course does not fit into a certificate/degree or GE; 2. The purpose of this course; 3. Who your audience will be.~~

Associated Programs

Changed	Field	Current Version	Proposed Version
	Course is part of a program	No value	No value

Transferability & Gen. Ed. Options

Changed	Field	Current Version	Proposed Version
	Transfer Status (CB05)	Transferable to CSU only	Transferable to CSU only
	Course General Education Status (CB25)	Y	Y
	Transfer Status	Approved	Approved
	GE Information	No value	No value

Weekly Student Hours - Profile Name: Default Profile

Changed	Field	Current Version	Proposed Version
	Lecture Hours - In Class	4.5	4.5

Changed	Field	Current Version	Proposed Version
	Lecture Hours - Out of Class	9	9
	Laboratory Hours - In Class	0	0
	Laboratory Hours - Out of Class	0	0
	NA Hours - In Class	0	0
	NA Hours - Out of Class	0	0

Course Student Hours - Profile Name: Default Profile

Changed	Field	Current Version	Proposed Version
	Course Duration (Weeks)	12	12
	Hours per unit divisor	36	36
	Total Student Learning Hours	162	162
	Lecture Hours - Course In-Class (Contact) per Term	54	54
	Lecture Hours - Course Out-of-Class per Term	108	108
	Laboratory Hours - Course In-Class (Contact) per Term	0	0
	Laboratory Hours - Course Out-of-Class per Term	0	0
	NA Hours - Course In-Class (Contact) per Term	0	0
	NA Hours - Course Out-of-Class per Term	0	0
	Total - Course In-Class (Contact) Hours	54	54
	Total - Course Out-of-Class Hours	108	108
	Total Credit Units - Minimum Credit Units	4.5	4.5
	Total Credit Units - Maximum Credit Units	4.5	4.5

Speciality Hours

Changed	Field	Current Version	Proposed Version
	Speciality Hours	No value	No value

Credit / Non-Credit Options

Changed	Field	Current Version	Proposed Version
	COURSE CLASSIFICATION STATUS	Credit Course.	Credit Course.
	Course Credit Status (CB04)	Credit - Degree Applicable	Credit - Degree Applicable
	Course Non Credit Category (CB22)	Credit Course.	Credit Course.
	Funding Agency Category (CB23)	Not Applicable.	Not Applicable.
	Cooperative Work Experience Education Status (CB10)	☐	☐
	Variable Credit Course	☐	☐

Credit Units

Changed	Field	Current Version	Proposed Version
	Course Duration (Weeks)	12	12
	Total Lecture Hours per Term	162	162
	Total Laboratory Hours per Term	-	0
	Total Contact Hours per Term	-	0
	Total Credit Units	4.5	4.5
	Minimum Credit Units	4.5	4.5
	Maximum Credit Units	4.5	4.5

SKIP

Changed	Field	Current Version	Proposed Version
	SKIP	No Value	No Value

Specifications

Changed	Field	Current Version	Proposed Version
❗	**Methods of Instruction**	**Methods of Instruction** **Methods of Instruction**: Lecture and visual aids Discussion of assigned reading Discussion and problem solving performed in class Quiz and examination review performed in class Collaborative learning and small group exercises	**Methods of Instruction**: Methods of Instruction **Methods of Instruction**: Lecture and visual aids Discussion of assigned reading Discussion and problem solving performed in class Quiz and examination review performed in class Collaborative learning and small group exercises

Changed	Field	Current Version	Proposed Version
!	**Assignments**	1. Reading material provided on Course Management System 2. Safety Test to insure personal responsibility in a shop setting 3. 7 worksheets focusing on reading material and problem solving. The worksheets include multiple choice and written sections. 4. Quizzes and tests with clear outcomes that test knowledge retention	1. Reading material provided on Course Management System 2. Safety Test to ensure personal responsibility in a shop setting 3. 7 worksheets focusing on reading material and problem solving. The worksheets include multiple choice and written sections. 4. Quizzes and tests with clear outcomes that test knowledge retention
!	**Methods of Evaluation**	**Methods of Evaluation** **Methods of Evaluation** 1. Accuracy of data on safety test 2. Completeness of assignment on the 7 worksheets 3. Number of correct answers on multiple choice, short answer quizzes and tests	**Methods of Evaluation** Methods of Evaluation **Methods of Evaluation** 1. Accuracy of data on safety test 2. Completeness of assignment on the 7 worksheets 3. Number of correct answers on multiple choice, short answer quizzes and tests
	Essential Student Materials/Essential College Facilities	**Essential Student Materials:** • Safety glasses for lab demonstrations **Essential College Facilities:** • Space for demonstrating gaseous fuels on many different types of equipment, including trucks	**Essential Student Materials:** • Safety glasses for lab demonstrations **Essential College Facilities:** • Space for demonstrating gaseous fuels on many different types of equipment, including trucks
!	**Examples of Primary Texts and References**	**Title** No value **Author** Material Provided on Course Management System **Publisher** No value **Date/Edition** No value **ISBN** No value	No value
!	**Suggested Reading List**	**Reading List** Manufacturer's manuals **May include, but are not limited to** No value **Reading List** Electronic information systems **May include, but are not limited to** No value	No value

Learning Outcomes and Objectives

Changed	Field	Current Version	Proposed Version
	Course Objectives	• Recognize gaseous fuel safety • Employ high pressure tank testing and certification • Summarize gaseous fuel • Categorize engine design required for gaseous fuels • Practice maintenance requirements for the different gaseous fuels • Discriminate fuel storage and vehicle filling	• Recognize gaseous fuel safety • Employ high pressure tank testing and certification • Summarize gaseous fuel • Categorize engine design required for gaseous fuels • Practice maintenance requirements for the different gaseous fuels • Discriminate fuel storage and vehicle filling
	CSLOs	**CSLOs**: Students will interpret the environmental affects gaseous fuel produce and which fuel has the lowest effect on our world. This will be determined with a group of questions on the final exam. **Expected SLO Performance**: 0.0	**CSLOs**: Interpret the environmental affects gaseous fuel produce and which fuel has the lowest effect on our world. This will be determined with a group of questions on the final exam. **Expected SLO Performance**: 0.0

Course Outline

Changed	Field	Current Version	Proposed Version
	Course Content	1. Recognize gaseous fuel safety 1. Personal Safety 2. Fuel storage safety 3. Fuel handling safety 2. Employ high pressure tank testing and certification 1. Tank inspection 2. Tank inspection certification training 3. Summarize gaseous fuel 1. Describe Propane use 2. Explain compressed natural gas systems 3. Examine hydrogen as a fuel 4. Categorize engine design required for gaseous fuels 1. Propane engine design and modifications 2. Compressed Natural gas engine design and modifications 3. Fuel cell design and types used in automotive applications 5. Practice maintenance requirements for the different gaseous fuels 1. Route service 2. Understanding the special requirement for gaseous fuels 6. Discriminate fuel storage and vehicle filling 1. On site storage requirements 2. Filling certification 3. Fuel filling Station 4. Fuel filling troubleshooting	1. Recognize gaseous fuel safety 1. Personal Safety 2. Fuel storage safety 3. Fuel handling safety 2. Employ high pressure tank testing and certification 1. Tank inspection 2. Tank inspection certification training 3. Summarize gaseous fuel 1. Describe Propane use 2. Explain compressed natural gas systems 3. Examine hydrogen as a fuel 4. Categorize engine design required for gaseous fuels 1. Propane engine design and modifications 2. Compressed Natural gas engine design and modifications 3. Fuel cell design and types used in automotive applications 5. Practice maintenance requirements for the different gaseous fuels 1. Route service 2. Understanding the special requirement for gaseous fuels 6. Discriminate fuel storage and vehicle filling 1. On site storage requirements 2. Filling certification 3. Fuel filling Station 4. Fuel filling troubleshooting
	Lab Component in this Course	No	No
	Lab Outline	No value	No value

Req/Adv

Changed	Questions	Current Version	Proposed Version
	Prerequisite(s):	No Value	No Value
	Corequisite(s):	No Value	No Value
	Advisory(ies):	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Advisory(ies) - Other:	No Value	No Value
	Limitation(s) on Enrollment:	(Open only to apprentices in the Automotive Technologies Apprenticeship Program (an approved program by the Division of Apprenticeship Standards).)	(Open only to apprentices in the Automotive Technologies Apprenticeship Program (an approved program by the Division of Apprenticeship Standards).)
	Limitation(s) on Enrollment - Other:	No Value	No Value
	Entrance Skills(s):	No Value	No Value
	Entrance Skill(s) - Other:	No Value	No Value
	General Course Statement(s):	No Value	No Value
	General Course Statement(s) - Other:	No Value	No Value

Curriculum Office

Changed	Questions	Current Version	Proposed Version
!	**Banner Start Term (202122)**	202122	No Value
!	**Banner Division**	2AT	No Value
!	**Catalog Term (21-22)**	21-22	No Value
!	**5 Year Revision Year (2021)**	2018	No Value
!	**Effective Quarter**	Fall	No Value
!	**Effective Year (2021)**	2018	No Value
	Sort ID (00 < 10; 0 < 100)	APRN 067G	APRN 067G
	Course Status	New Stand-Alone	New Stand-Alone
!	**Course Status Code**	A	No Value
!	**Banner Department**	AUTO	No Value
!	**Course Level**	DU	No Value
!	**College Code**	DA	No Value
	Course Characteristics	CTE	CTE
	Cross-Listed/Related Course Information	NA	NA
	Cross-Listed/Related Course ID's	No Value	No Value
!	**CTE Status**	Yes	No Value
	DL Approval Date (MM/DD/YYYY)	No Value	No Value
	Hybrid Approval Date (MM/DD/YYYY)	No Value	No Value
!	**Emergency Approval**	No	No Value

Changed	Questions	Current Version	Proposed Version
!	**Repeat Status (N = Not Repeatable; T = Repeatable for Max Times Only; B = Repeatable for Max Times/Units; U = Repeatable for Max Units Only; Y = Yearly Repeatable Restriction)**	N	No Value
!	**Repeat Type (N = Non-repeatable Credit; A = Activity/Other Repeatable; F = Family Non-repeatable Credit; G = Family Activity/Other Repeatable; L = Legally Mandated Training)**	N	No Value
!	**Hours Statement (Three hours lecture, three hours laboratory (72 hours total per quarter).)**	Four and one-half hours lecture (54 hours total per quarter).	No Value
!	**Noncredit Enhanced Funding Indicator**	N	No Value
!	**In Service Indicator**	N	No Value
!	**Sports/Physical Education Course Indicator**	N	No Value
!	**COA Code**	C	No Value
!	**Fund Code**	114000	No Value
!	**Organization Code**	236503	No Value
!	**Account Code**	1320	No Value
!	**Program Code**	094800	No Value
!	**Percent**	100	No Value
	Curriculum Office Notes	No Value	No Value
!	**Print/No Print to Catalog**	Yes	No Value

Summary of Revisions

Changed	Questions	Current Version	Proposed Version
!	**Basic Course Information**	No Value	Description update Course justification update
	Units and Hours	No Value	No Value
	Specifications	No Value	No Value
	Outline	No Value	No Value
	Other	No Value	No Value

Blue Form

Changed	Questions	Current Version	Proposed Version
	For changes to the units and hours tab; 1) Contact the Curriculum Office at curriculum@fhda.edu with the course information changes; and 2) address items 1-3 below. Please be aware that load factors and seat counts are assigned based on established, negotiated values.	No Value	No Value
	1. Is the unit(s) change required for articulation?	No Value	No Value
	2. If the course is UC or CSU transferable, identify one UC or CSU campus with the same unit value requested and copy and paste the catalog description of the course.	No Value	No Value
	3. Identify the areas in the course outline of record that justify the unit(s) and/or hour(s) change.	No Value	No Value
	Office Use ONLY: For a REVISION, state the existing unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.	No Value	No Value
	Office Use ONLY: For a REVISION, state the new unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.	No Value	No Value
	Office Use ONLY: For NEW, state the unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.	No Value	No Value

A-Matrix Form

Changed	Questions	Current Version	Proposed Version
	EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 1: Analyze college level texts and discourse that are culturally and rhetorically diverse.	No Value	No Value
	Objective 2: Compose essays drawn from personal experience and assigned texts.	No Value	No Value
	Objective 3: Utilize MLA guidelines to format essays, cite sources, and compile a works cited page.	No Value	No Value
	Objective 4: Create syntactically varied sentences that are free of mechanical errors.	No Value	No Value
	Objective 5: Distinguish, compare, and evaluate the multiplicity and ambiguity of perspectives.	No Value	No Value

B-Matrix Form

Changed	Questions	Current Version	Proposed Version
	ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.	No Value	No Value
	Objective 1: Analyze a variety of college-level texts with a focus predominantly on expository and argumentative writing.	No Value	No Value
	Objective 2: Develop analytical ideas and topics for essays.	No Value	No Value
	Objective 3: Compose and support thesis statements for analytical essays.	No Value	No Value
	Objective 4: Develop clear sequential relationship between central argument/controlling idea and supporting ideas in writing.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 5: Identify and practice writing for different audiences and purposes.	No Value	No Value
	Objective 6: Develop and demonstrate a variety of rhetorical strategies to develop strong analysis in essays.	No Value	No Value
	Objective 7: Demonstrate writing as a multi-step process including attention to planning and revision.	No Value	No Value
	Objective 8: Practice composing organized, developed, analytical essays that increase in complexity.	No Value	No Value
	Objective 9: Demonstrate appropriate grammar usage and mechanics.	No Value	No Value

C-Matrix Form

Changed	Questions	Current Version	Proposed Version
	ESL D261. and ESL D265., or ESL D461. and ESL D465., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.	No Value	No Value
	Objective 1: Create compositions about fiction and non-fiction texts from many cultural and social perspectives in a variety of genres.	No Value	No Value
	Objective 2: Compose a focused, purposeful, developed paper of 500 words or more that engages with, responds to, or is inspired by written or visual texts.	No Value	No Value
	Objective 3: Produce written work using a cyclical process of multiples drafts and revisions.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 4: Demonstrate the ability to include a variety of sentence structures in writing.	No Value	No Value
	Objective 5: Edit compositions to correct errors in the major conventions of Standard Written English.	No Value	No Value

D-Matrix Form

Changed	Questions	Current Version	Proposed Version
	Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.	No Value	No Value
	Objective 1: Plan, implement, and assess work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.	No Value	No Value
	Objective 2: Investigate the use of mathematics in real world.	No Value	No Value
	Objective 3: Explore functions.	No Value	No Value
	Objective 4: Develop linear function models.	No Value	No Value
	Objective 5: Use systems of two linear equations to solve real world problems.	No Value	No Value
	Objective 6: Use linear inequalities in one variable to solve real world problems.	No Value	No Value
	Objective 7: Examine exponential expressions and develop exponential function models.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 8: Examine logarithmic expressions and develop logarithmic function models.	No Value	No Value
	Objective 9: Develop quadratic function models to solve problems.	No Value	No Value
	Objective 10: Investigate the characteristics of rational expressions.	No Value	No Value
	Objective 11: Develop skills to work with radical expressions.	No Value	No Value

E-Matrix Form

Changed	Questions	Current Version	Proposed Version
	Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.	No Value	No Value
	Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.	No Value	No Value
	Objective 2: Explore the function concept algebraically, numerically, verbally and graphically.	No Value	No Value
	Objective 3: Explore the graphical and numerical characteristics of linear relationships and describe their meaning in the context of a problem.	No Value	No Value
	Objective 4: Develop linear function models to solve problems.	No Value	No Value
	Objective 5: Use systems of two linear equations to solve real-world problems.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 6: Explore the graphical and numerical characteristics of quadratic relationships and describe their meaning in the context of a problem.	No Value	No Value
	Objective 7: Develop quadratic function models to solve problems.	No Value	No Value
	Objective 8: Use inequalities to solve real world problems.	No Value	No Value
	Objective 9: Explore arithmetic sequences and series.	No Value	No Value
	Objective 10: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.	No Value	No Value

F-Matrix Form

Changed	Questions	Current Version	Proposed Version
	Pre-algebra or equivalent (or higher), or appropriate placement beyond pre-algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.	No Value	No Value
	Objective 1: Develop, throughout the course as applicable, systematic problem solving methods.	No Value	No Value
	Objective 2: Solve problems involving arithmetic operations, including fractions, percents and decimals.	No Value	No Value
	Objective 3: Apply the order of operations to evaluate signed numerical expressions.	No Value	No Value
	Objective 4: Solve problems involving operations with signed numbers.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 5: Explore the characteristics and properties of real numbers.	No Value	No Value
	Objective 6: Use estimation to determine approximate solutions and to check the reasonableness of answers.	No Value	No Value
	Objective 7: Explore rates and ratios and use proportions to solve problems.	No Value	No Value
	Objective 8: Explore, as applicable throughout the course, the geometry of mathematical measurements and solve problems involving geometric figures and formulas.	No Value	No Value
	Objective 9: Explore the use of variables in expressions and evaluate algebraic expressions.	No Value	No Value
	Objective 10: Solve linear equations in one variable numerically and algebraically.	No Value	No Value
	Objective 11: Graph linear relationships on a Cartesian coordinate by plotting ordered pairs.	No Value	No Value
	Objective 12: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.	No Value	No Value

G-Matrix Form

Changed	Questions	Current Version	Proposed Version
	If the requisite does not fall under an A-F Matrix, download the Content Review Matrix G from the Reference Materials, and follow the remaining instructions on the form. If a requisite falling under Matrix G is being removed, provide an explanation as to why.	No Value	No Value

H-Matrix Form

Changed	Questions	Current Version	Proposed Version
!	**Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc… list the prerequisite(s) to participate in the program.**	No Value	Employment with local 1101 union or City of San Jose
	Objective 2: For Student Cohorts, such as Honors, Puente, performance groups, intercollegiate teams, Special Projects course, etc… list the prerequisite(s) to participate in the cohort.	No Value	No Value
	Objective 3: For Prerequisites based on Government/Licensing/Certification Regulations, or legal requirements, cite the regulation that mandates a prerequisite or attach a copy of it to this form.	No Value	No Value
	Objective 4: For Prerequisites based on Health and Safety, describe the specific skills, concepts, and information without which the students would create a hazard to themselves or those around them. Also describe how students will meet those skills, i.e. such as a course.	No Value	No Value

De Anza GE Form

Changed	Questions	Current Version	Proposed Version
	Criteria 1: Present core concepts and scope that define the discipline. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Criteria 2: Foster oral and written communication and collaborative exercises. Note that this criteria has three separate pieces: oral communication, written communication, and collaborative exercises. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)	No Value	No Value
	Criteria 3: Stimulate critical thinking. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)	No Value	No Value
	Criteria 4: Include diverse perspectives and contributions in the discipline such as: gender, culture, values, and/or societal perspectives. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)	No Value	No Value
	Criteria 5: Provide global and historical context. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)	No Value	No Value
	Criteria 6: Use real-world or hands-on applications that will provide a context for the concepts being discussed. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)	No Value	No Value

De Anza GE - ESGC Form

Changed	Questions	Current Version	Proposed Version
	Criteria 1: Explain the interconnectivity of economic prosperity, social equity and environmental quality.	No Value	No Value
	Criteria 2: Identify the most serious environmental, equity, and social justice problems globally and locally and explain their underlying causes and possible consequences.	No Value	No Value
	Criteria 3: Explain some significant ways students can make a difference in making a positive impact, locally, at a state level, or globally in making the world more environmentally sustainable and socially just.	No Value	No Value
	Criteria 4: Analyze how the well being of human society is dependent on sustainable social and ecological systems.	No Value	No Value
	Criteria 5: Demonstrate an understanding of how the student's personal activities impact the environment and communities by participating in actions to create a more environmentally sustainable and equitable future.	No Value	No Value

Comments

Changed	Questions	Current Version	Proposed Version
	Stage 2: Department Chair	No Value	No Value
	Stage 3: Division Curriculum Representative	No Value	No Value
	Stage 4: Division Dean	No Value	No Value

Changed	Questions	Current Version	Proposed Version			
!	**Stage 5: SLO Coordinator**	No Value	**Date**	**Name - Role OR Tab**	**Part - Type of Field Edit**	**Edit**
			12/8/2024	Mary Pape - SLO Coordinator	CSLORequired	**Students will interpret the environmental affects gaseous fuel produce a** cdec-4b4f-91ca- 29616f99a8271701287403793&viewType=step&fromUrl=https%3A%2F%2Fd review-filters#) Upon agreement campus wide (and that adopted by ASCCC) T actionMethod=to&page=%2Fjsp%2Fworkflow%2FworkflowWithChanges%2Fv 29616f99a8271701287403793&viewType=step&fromUrl=https%3A%2F%2Fd review-filters#) "
!	**Stage 7: Content Review Matrix Liaison**	No Value	**Date**	**Name - Role OR Tab**	**Part - Field**	**Type of Edit** **Edit** **Initiator - Indicate '**
			2/27/24	Matrix H	Objective 1	Required List prerequisites for being an apprenticestill not updated 4/4 Y - still not updated Fixed - Dave C 4/4/2
	Stage 8: AVP - Instruction	No Value	No Value			
	Stage 9: Articulation Officer	No Value	No Value			
	Stage 11: ESGC Faculty Coordinator	No Value	No Value			
	Stage 14: Curriculum Committee	No Value	No Value			

Course Administration Codes

Articulation occurs after course approval. The following fields will not show a Proposed Version.

Changed	Field	Current Version
	Curriculum ID	APRND067G
	Distance Education Approved	No
	Board of Trustees Approval Date	
	Curriculum Committee Approval Date	
	Time to Next Review	Aug 31, 2023 12:00:00 AM
	External Review Approval Date	Sep 1, 2018 12:00:00 AM
	Course Control Number	CCC000592137

Articulation

Changed	Field	Current Version
	Course Crosswalk CRS-DEPT-NAME	
	Course Crosswalk CRS-NUMBER	

De Anza College

Change Report

05/31/2024

Summary of Changes

Section	Changed field
General Information	Faculty Initiator
General Information	Effective Term
General Information	Course Description
General Information	Course Type (CB27)
General Information	Mode of Delivery
Faculty Requirements	Discipline 1
Faculty Requirements	FSA
Specifications	Methods of Instruction
Specifications	Methods of Evaluation
Specifications	Examples of Primary Texts and References
Specifications	Suggested Reading List
Req/Adv	Advisory(ies):
Curriculum Office	Banner Start Term (202122)
Curriculum Office	Banner Division
Curriculum Office	Catalog Term (21-22)
Curriculum Office	5 Year Revision Year (2021)
Curriculum Office	Effective Quarter
Curriculum Office	Effective Year (2021)
Curriculum Office	Course Status Code
Curriculum Office	Banner Department
Curriculum Office	Course Level
Curriculum Office	College Code
Curriculum Office	CTE Status
Curriculum Office	Emergency Approval
Curriculum Office	Repeat Status (N = Not Repeatable; T = Repeatable for Max Times Only; B = Repeatable for Max Times/Units; U = Repeatable for Max Units Only; Y = Yearly Repeatable Restriction)
Curriculum Office	Repeat Type (N = Non-repeatable Credit; A = Activity/Other Repeatable; F = Family Non-repeatable Credit; G = Family Activity/Other Repeatable; L = Legally Mandated Training)
Curriculum Office	Noncredit Enhanced Funding Indicator
Curriculum Office	In Service Indicator
Curriculum Office	Sports/Physical Education Course Indicator
Curriculum Office	COA Code
Curriculum Office	Fund Code

Section	Changed field
Curriculum Office	Organization Code
Curriculum Office	Account Code
Curriculum Office	Program Code
Curriculum Office	Percent
Curriculum Office	Print/No Print to Catalog
Summary of Revisions	Basic Course Information
Summary of Revisions	Specifications
Summary of Revisions	Other
C-Matrix Form	Objective 4: Demonstrate the ability to include a variety of sentence structures in writing.
E-Matrix Form	Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.
F-Matrix Form	Objective 7: Explore rates and ratios and use proportions to solve problems.
Comments	Stage 7: Content Review Matrix Liaison
CTE Course	Is this a CTE (Career Technical Education) course?
Honors/Non-honors Course	Is this an honors/non-honors course?
Mirrored Credit/Noncredit Course	Is this a mirrored credit/noncredit course?
Cross-listed Course	Is this a cross-listed course?

General Information

Changed	Field	Current Version	Proposed Version
!	**Faculty Initiator**	• Mike Appio	• Dave Capitolo
	Course ID (CB01A and CB01B)	AUTOD067J	AUTOD067J
	Course Control Number	CCC000536406	CCC000536406
	Course Title (CB02)	Introduction to Automotive and Light Truck Diesel Systems	Introduction to Automotive and Light Truck Diesel Systems
	Short Course Title	INTRO TO AUTO/LIGHT TRUCK	INTRO TO AUTO/LIGHT TRUCK
	TOP Code (CB03)	0948.00	0948.00 Automotive Technology
	CIP Code	Automobile/Automotive Mechanics Technology/Technician	47.0604 Automobile/Automotive Mechanics Technology/Technician
	Department	AUTO - Automotive Technology	AUTO - Automotive Technology
!	**Effective Term**	Fall 2023	Fall ~~2023~~ 2025
	SAM Priority Code (CB09)	Clearly Occupational	Clearly Occupational
!	**Course Description**	As of January 2010, California state law required light duty diesel powered vehicles to be included in the smog check program. Diesel's higher efficiency is moving these vehicles' highway mileage to over 40 miles per gallon. Chevrolet and Jeep are all adding diesel powered vehicles into their new car line-up. This course will consist of lectures and laboratory demonstrations. Providing our students with the necessary skills to maintain and repair light duty diesel vehicles. Diesel training will give students new abilities that are required to be successful in their careers in the automotive industry.	~~As of January 2010, California state law required light duty diesel powered vehicles to be included in the smog check program. Diesel's higher efficiency is moving these vehicles' highway mileage to over 40 miles per gallon. Chevrolet and Jeep are all adding diesel powered vehicles into their new car line-up.~~ This course will consist of lectures and laboratory demonstrations. Providing our students with the necessary skills to maintain and repair light duty diesel vehicles. Diesel training will give students new abilities that are required to be successful in their careers in the automotive industry.

Changed	Field	Current Version	Proposed Version
!	**Course Type (CB27)**	No value	• Lower Division
!	**Mode of Delivery**	• NA	• In person ONLY

Faculty Requirements

Changed	Field	Current Version	Proposed Version
!	**Discipline 1**	No value	• Automotive Technology
	Discipline 2	No value	No value
	Discipline 3	No value	No value
!	**FSA**	No value	• FHDA FSA - AUTO TECH

Formerly Statement

Changed	Field	Current Version	Proposed Version
	Formerly Statement	(Formerly AUTO D064G.)	(Formerly AUTO D064G.)

Course Justification

Changed	Field	Current Version	Proposed Version
	Course Justification	This CTE, CSU transferable course is on the Certificate of Achievement in Advanced Automotive Technology. It is also intended to better prepare students for work in the automotive industry in the areas of light truck and automotive diesel systems, as advised by our industry advisory committee.	This CTE, CSU transferable course is on the Certificate of Achievement in Advanced Automotive Technology. It is also intended to better prepare students for work in the automotive industry in the areas of light truck and automotive diesel systems, as advised by our industry advisory committee.

Stand-Alone Statement

Changed	Field	Current Version	Proposed Version
	Stand-Alone Statement	No value	

Course Philosophy

Changed	Field	Current Version	Proposed Version
	Course Philosophy	No value	

Foothill Equivalency

Changed	Field	Current Version	Proposed Version
	Does the course have a Foothill equivalent?	No	No
	Foothill Faculty Consultation Name	No value	

Changed	Field	Current Version	Proposed Version
	Foothill Course ID	No value	

CTE Course

Changed	Field	Current Version	Proposed Version
❗	**Is this a CTE (Career Technical Education) course?**	No value	Yes

Honors/Non-honors Course

Changed	Field	Current Version	Proposed Version
❗	**Is this an honors/non-honors course?**	No value	No

Mirrored Credit/Noncredit Course

Changed	Field	Current Version	Proposed Version
❗	**Is this a mirrored credit/noncredit course?**	No value	Yes - don't forget to duplicate the revisions in the mirrored credit/noncredit course

Cross-listed Course

Changed	Field	Current Version	Proposed Version
❗	**Is this a cross-listed course?**	No value	No

More Options

Changed	Field	Current Version	Proposed Version
	Basic Skill Status (CB08)	Course is not a basic skills course.	Course is not a basic skills course.
	Course Prior To College Level	Not applicable.	Not applicable.
	Course Special Class Status (CB13)	Course is not a special class.	Course is not a special class.
	Course Support Status (CB26)	Course is not a support course	Course is not a support course
	Repeat Limit	0	0
	Grade Options	• Letter Grade • Pass/No Pass	• Letter Grade • Pass/No Pass
	Allow Students to Gain Credit by Exam/Challenge	☐	☐
	Repeatability Statement	No value	

Associated Programs

Changed	Field	Current Version	Proposed Version
	Course is part of a program	**Associated Program** Advanced Automotive Technology **Award Type** Certificate of Achievement (COA)	**Associated Program** Advanced Automotive Technology **Award Type** Certificate of Achievement (COA)

Transferability & Gen. Ed. Options

Changed	Field	Current Version	Proposed Version
	Transfer Status (CB05)	Transferable to CSU only	Transferable to CSU only
	Course General Education Status (CB25)	Y	Y
	Transfer Status	Approved	Approved
	GE Information	No value	No value

Weekly Student Hours - Profile Name: Default Profile

Changed	Field	Current Version	Proposed Version
	Lecture Hours - In Class	4.5	4.5
	Lecture Hours - Out of Class	9	9
	Laboratory Hours - In Class	0	0
	Laboratory Hours - Out of Class	0	0
	NA Hours - In Class	0	0
	NA Hours - Out of Class	0	0

Course Student Hours - Profile Name: Default Profile

Changed	Field	Current Version	Proposed Version
	Course Duration (Weeks)	12	12
	Hours per unit divisor	36	36
	Total Student Learning Hours	162	162
	Lecture Hours - Course In-Class (Contact) per Term	54	54

Changed	Field	Current Version	Proposed Version
	Lecture Hours - Course Out-of-Class per Term	108	108
	Laboratory Hours - Course In-Class (Contact) per Term	0	0
	Laboratory Hours - Course Out-of-Class per Term	0	0
	NA Hours - Course In-Class (Contact) per Term	0	0
	NA Hours - Course Out-of-Class per Term	0	0
	Total - Course In-Class (Contact) Hours	54	54
	Total - Course Out-of-Class Hours	108	108
	Total Credit Units - Minimum Credit Units	4.5	4.5
	Total Credit Units - Maximum Credit Units	4.5	4.5

Speciality Hours

Changed	Field	Current Version	Proposed Version
	Speciality Hours	No value	No value

Credit / Non-Credit Options

Changed	Field	Current Version	Proposed Version
	COURSE CLASSIFICATION STATUS	Credit Course.	Credit Course.
	Course Credit Status (CB04)	Credit - Degree Applicable	Credit - Degree Applicable
	Course Non Credit Category (CB22)	Credit Course.	Credit Course.
	Funding Agency Category (CB23)	Not Applicable.	Not Applicable.
	Cooperative Work Experience Education Status (CB10)	☐	☐
	Variable Credit Course	☐	☐

Credit Units

Changed	Field	Current Version	Proposed Version
	Course Duration (Weeks)	12	12

Changed	Field	Current Version	Proposed Version
	Total Lecture Hours per Term	162	162
	Total Laboratory Hours per Term	-	0
	Total Contact Hours per Term	-	0
	Total Credit Units	4.5	4.5
	Minimum Credit Units	4.5	4.5
	Maximum Credit Units	4.5	4.5

SKIP

Changed	Field	Current Version	Proposed Version
	SKIP	No Value	No Value

Specifications

Changed	Field	Current Version	Propos
❗	**Methods of Instruction**	**Methods of Instruction** **Methods of Instruction**: Lecture and visual aids Discussion of assigned reading Discussion and problem solving performed in class Quiz and examination review performed in class Collaborative learning and small group exercises	**Metho of Instru** **Metho of Instru**
	Assignments	1. Reading from material provided on Course Management System and guided discussions to build diesel systems' knowledge 2. Safety test used to insure personal responsibility in a shop setting 3. Quizzes that tests knowledge retention with formalized review and outcome discussions 4. Worksheets focusing on reading materials and problem solving. The worksheets include multiple choice questions, fill in the blanks and written sections. 5. Researching assigned topics 6. Comprehensive Final Exam	1. R p M g d 2. S p s 3. C r r d 4. V r s i q w 5. R 6. C

Changed	Field	Current Version	Propos
!	**Methods of Evaluation**	**Methods of Evaluation** **Methods of Evaluation** 1. Accuracy of data on the quizzes and test to recognize key ideas and evaluate the author's theories as they relate to practical applications 2. Completeness of all worksheets demonstrating the importance of correctly finishing given tasks 3. Accumulative final exam, re-examining the course's main ideas and demonstrating complete understanding of diesel theory	**Metho of Evalu** **Metho of Evalu**
	Essential Student Materials/Essential College Facilities	**Essential Student Materials:** • Safety glasses for lab demonstrations **Essential College Facilities:** • Access to automotive laboratory for demonstrations • Stationary diesel engine • Diesel compression tester • Diesel injector nozzle tester	**Essent** • S d **Essent** • A la • S • D • D
!	**Examples of Primary Texts and References**	**Title** No value **Author** Factory material provided on Course Management System **Publisher** No value **Date/Edition** No value **ISBN** No value	**Title** **Autho** **Publis** **Date/E** **ISBN**

Changed	Field	Current Version	Propos
!	Suggested Reading List	**Reading List**: All DATA electronic information system (WEB based), http://library.alldatapro.com/alldata/LIB~C8951~R0~OD~N/0/34870081/56415648/56416313/56416327/34853741 **May include, but are not limited to**: No value **Reading List**: Shopkey electronic information system (WEB based), http://www.shopkey5.com/mric/trypreauth.asp **May include, but are not limited to**: No value	No valu

Learning Outcomes and Objectives

Changed	Field	Current Version	Proposed Version
	Course Objectives	• Practice shop and personal safety • Summarize diesel engine history and theory • Analyze intake and exhaust systems • Describe fuel subsystems • Critique injector nozzle construction • Identify engine electronics • Demonstrate Emission Controls • Justify servicing and maintenance	• Practice shop and personal safety • Summarize diesel engine history and theory • Analyze intake and exhaust systems • Describe fuel subsystems • Critique injector nozzle construction • Identify engine electronics • Demonstrate Emission Controls • Justify servicing and maintenance
	CSLOs	**CSLOs**: Demonstrate the ability to understand diesel theory. **Expected SLO Performance**: 0.0 **CSLOs**: Develop a testing system to systematically trouble shoot diesel fuel systems. **Expected SLO Performance**: 0.0	**CSLOs**: Demonstrate the ability to understand diesel theory. **Expected SLO Performance**: 0.0 **CSLOs**: Develop a testing system to systematically trouble shoot diesel fuel systems. **Expected SLO Performance**: 0.0

Course Outline

Changed	Field	Current Version	Proposed Version
	Course Content	1. Practice shop and personal safety 1. Safety rules 2. Personal safety equipment 3. Fire Safety 4. General shop precautions 2. Summarize diesel engine history and theory 1. Diesel engine terms 2. The Diesel cycle 3. Engine systems and circuits 4. Modern Diesel engine 3. Analyze intake and exhaust systems 1. Air intake components 2. Turbochargers 3. Charge air coolers 4. Exhaust gas recirculation 5. Valve design 4. Describe fuel subsystems 1. Fuel tanks 2. Fuel filters 3. Fuel charging/transfer pumps 5. Critique injector nozzle construction 1. Port-Helix metering pumps 2. Injection pump components 3. Delivery, injection and combustion 4. Opposed-plunger, inlet-metering injection pumps 5. Roosa DB2 6. Sleeve-metering, single plunger distributor pumps 6. Identify engine electronics 1. Electronic unit injectors 2. Input circuit 3. HEUI 4. Common rail fuel systems 5. PCM 6. Output circuits 7. Multiplexing 7. Demonstrate Emission Controls 1. What is smog? 2. Diesel engine emission control 3. Catalytic converters 4. Selective catalytic reduction 5. Smoke analysis 8. Justify servicing and maintenance 1. Start-up and engine break-in 2. Air intake system maintenance 3. Engine lube system 4. Cooling system service 5. Fuel system maintenance 6. Selective catalytic reduction 7. Diesel particulate filter service	1. Practice shop and personal safety 1. Safety rules 2. Personal safety equipment 3. Fire Safety 4. General shop precautions 2. Summarize diesel engine history and theory 1. Diesel engine terms 2. The Diesel cycle 3. Engine systems and circuits 4. Modern Diesel engine 3. Analyze intake and exhaust systems 1. Air intake components 2. Turbochargers 3. Charge air coolers 4. Exhaust gas recirculation 5. Valve design 4. Describe fuel subsystems 1. Fuel tanks 2. Fuel filters 3. Fuel charging/transfer pumps 5. Critique injector nozzle construction 1. Port-Helix metering pumps 2. Injection pump components 3. Delivery, injection and combustion 4. Opposed-plunger, inlet-metering injection pumps 5. Roosa DB2 6. Sleeve-metering, single plunger distributor pumps 6. Identify engine electronics 1. Electronic unit injectors 2. Input circuit 3. HEUI 4. Common rail fuel systems 5. PCM 6. Output circuits 7. Multiplexing 7. Demonstrate Emission Controls 1. What is smog? 2. Diesel engine emission control 3. Catalytic converters 4. Selective catalytic reduction 5. Smoke analysis 8. Justify servicing and maintenance 1. Start-up and engine break-in 2. Air intake system maintenance 3. Engine lube system 4. Cooling system service 5. Fuel system maintenance 6. Selective catalytic reduction 7. Diesel particulate filter service
	Lab Component in this Course	No	No
	Lab Outline	No value	No value

Req/Adv

Changed	Questions	Current Version	Proposed Version
	Prerequisite(s):	No Value	No Value
	Corequisite(s):	No Value	No Value
❗	**Advisory(ies):**	ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra	ESL D261. and ESL D265., or ESL D461. and ESL D465., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. Pre-algebra or equivalent (or higher), or appropriate placement beyond pre-algebra

Changed	Questions	Current Version	Proposed Version
	Advisory(ies) - Other:	AUTO D050A and AUTO D050B	AUTO D050A and AUTO D050B
	Limitation(s) on Enrollment:	No Value	No Value
	Limitation(s) on Enrollment - Other:	No Value	No Value
	Entrance Skills(s):	No Value	No Value
	Entrance Skill(s) - Other:	No Value	No Value
	General Course Statement(s):	No Value	No Value
	General Course Statement(s) - Other:	No Value	No Value

Curriculum Office

Changed	Questions	Current Version	Proposed Version
!	**Banner Start Term (202122)**	202122	No Value
!	**Banner Division**	2AT	No Value
!	**Catalog Term (21-22)**	23-24	No Value
!	**5 Year Revision Year (2021)**	2018	No Value
!	**Effective Quarter**	Fall	No Value
!	**Effective Year (2021)**	2023	No Value
	Sort ID (00 < 10; 0 < 100)	AUTO 067J	AUTO 067J
	Course Status	Non-substantial	Non-substantial
!	**Course Status Code**	A	No Value
!	**Banner Department**	AUTO	No Value
!	**Course Level**	DU	No Value
!	**College Code**	DA	No Value
	Course Characteristics	CTE	CTE
	Cross-Listed/Related Course Information	NA	NA
	Cross-Listed/Related Course ID's	No Value	No Value
!	**CTE Status**	Yes	No Value
	DL Approval Date (MM/DD/YYYY)	No Value	No Value
	Hybrid Approval Date (MM/DD/YYYY)	No Value	No Value
!	**Emergency Approval**	No	No Value

Changed	Questions	Current Version	Proposed Version
!	**Repeat Status (N = Not Repeatable; T = Repeatable for Max Times Only; B = Repeatable for Max Times/Units; U = Repeatable for Max Units Only; Y = Yearly Repeatable Restriction)**	N	No Value
!	**Repeat Type (N = Non-repeatable Credit; A = Activity/Other Repeatable; F = Family Non-repeatable Credit; G = Family Activity/Other Repeatable; L = Legally Mandated Training)**	N	No Value
!	**Noncredit Enhanced Funding Indicator**	N	No Value
!	**In Service Indicator**	N	No Value
!	**Sports/Physical Education Course Indicator**	N	No Value
!	**COA Code**	C	No Value
!	**Fund Code**	114000	No Value
!	**Organization Code**	236503	No Value
!	**Account Code**	1320	No Value
!	**Program Code**	094800	No Value
!	**Percent**	100	No Value
	Curriculum Office Notes	• Requisite change appr. 1/17/23 (effect. F23).-cc	• Requisite change appr. 1/17/23 (effect. F23).-cc
!	**Print/No Print to Catalog**	Yes	No Value
	Checklist	No Value	No Value

Summary of Revisions

Changed	Questions	Current Version	Proposed Version
!	**Basic Course Information**	No Value	Description update
	Units and Hours	No Value	No Value
!	**Specifications**	No Value	Updated textbooks and references to reflect current publications
	Outline	No Value	No Value
!	**Other**	No Value	Added B, E, and G matrices

Blue Form

Changed	Questions	Current Version	Proposed Version
	For changes to the units and hours tab; 1) Contact the Curriculum Office at curriculum@fhda.edu with the course information changes; and 2) address items 1-3 below. Please be aware that load factors and seat counts are assigned based on established, negotiated values.	No Value	No Value
	1. Is the unit(s) change required for articulation?	No Value	No Value
	2. If the course is UC or CSU transferable, identify one UC or CSU campus with the same unit value requested and copy and paste the catalog description of the course.	No Value	No Value
	3. Identify the areas in the course outline of record that justify the unit(s) and/or hour(s) change.	No Value	No Value
	Office Use ONLY: For a REVISION, state the existing unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.	No Value	No Value
	Office Use ONLY: For a REVISION, state the new unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.	No Value	No Value
	Office Use ONLY: For NEW, state the unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.	No Value	No Value

A-Matrix Form

Changed	Questions	Current Version	Proposed Version
	EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 1: Analyze college level texts and discourse that are culturally and rhetorically diverse.	No Value	No Value
	Objective 2: Compose essays drawn from personal experience and assigned texts.	No Value	No Value
	Objective 3: Utilize MLA guidelines to format essays, cite sources, and compile a works cited page.	No Value	No Value
	Objective 4: Create syntactically varied sentences that are free of mechanical errors.	No Value	No Value
	Objective 5: Distinguish, compare, and evaluate the multiplicity and ambiguity of perspectives.	No Value	No Value

B-Matrix Form

Changed	Questions	Current Version	Proposed Version
	ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.	No Value	No Value
	Objective 1: Analyze a variety of college-level texts with a focus predominantly on expository and argumentative writing.	No Value	No Value
	Objective 2: Develop analytical ideas and topics for essays.	No Value	No Value
	Objective 3: Compose and support thesis statements for analytical essays.	No Value	No Value
	Objective 4: Develop clear sequential relationship between central argument/controlling idea and supporting ideas in writing.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 5: Identify and practice writing for different audiences and purposes.	No Value	No Value
	Objective 6: Develop and demonstrate a variety of rhetorical strategies to develop strong analysis in essays.	No Value	No Value
	Objective 7: Demonstrate writing as a multi-step process including attention to planning and revision.	No Value	No Value
	Objective 8: Practice composing organized, developed, analytical essays that increase in complexity.	No Value	No Value
	Objective 9: Demonstrate appropriate grammar usage and mechanics.	No Value	No Value

C-Matrix Form

Changed	Questions	Current Version	Proposed Version
	ESL D261. and ESL D265., or ESL D461. and ESL D465., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.	No Value	No Value
	Objective 1: Create compositions about fiction and non-fiction texts from many cultural and social perspectives in a variety of genres.	No Value	No Value
	Objective 2: Compose a focused, purposeful, developed paper of 500 words or more that engages with, responds to, or is inspired by written or visual texts.	No Value	No Value
	Objective 3: Produce written work using a cyclical process of multiples drafts and revisions.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
!	**Objective 4: Demonstrate the ability to include a variety of sentence structures in writing.**	No Value	From outline D. Describe Fuel Subsystems
	Objective 5: Edit compositions to correct errors in the major conventions of Standard Written English.	No Value	No Value

D-Matrix Form

Changed	Questions	Current Version	Proposed Version
	Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.	No Value	No Value
	Objective 1: Plan, implement, and assess work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.	No Value	No Value
	Objective 2: Investigate the use of mathematics in real world.	No Value	No Value
	Objective 3: Explore functions.	No Value	No Value
	Objective 4: Develop linear function models.	No Value	No Value
	Objective 5: Use systems of two linear equations to solve real world problems.	No Value	No Value
	Objective 6: Use linear inequalities in one variable to solve real world problems.	No Value	No Value
	Objective 7: Examine exponential expressions and develop exponential function models.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 8: Examine logarithmic expressions and develop logarithmic function models.	No Value	No Value
	Objective 9: Develop quadratic function models to solve problems.	No Value	No Value
	Objective 10: Investigate the characteristics of rational expressions.	No Value	No Value
	Objective 11: Develop skills to work with radical expressions.	No Value	No Value

E-Matrix Form

Changed	Questions	Current Version	Proposed Version
	Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.	No Value	No Value
❗	**Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.**	No Value	From course outline: E. Critique injector nozzle construction
	Objective 2: Explore the function concept algebraically, numerically, verbally and graphically.	No Value	No Value
	Objective 3: Explore the graphical and numerical characteristics of linear relationships and describe their meaning in the context of a problem.	No Value	No Value
	Objective 4: Develop linear function models to solve problems.	No Value	No Value
	Objective 5: Use systems of two linear equations to solve real-world problems.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 6: Explore the graphical and numerical characteristics of quadratic relationships and describe their meaning in the context of a problem.	No Value	No Value
	Objective 7: Develop quadratic function models to solve problems.	No Value	No Value
	Objective 8: Use inequalities to solve real world problems.	No Value	No Value
	Objective 9: Explore arithmetic sequences and series.	No Value	No Value
	Objective 10: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.	No Value	No Value

F-Matrix Form

Changed	Questions	Current Version	Proposed Version
	Pre-algebra or equivalent (or higher), or appropriate placement beyond pre-algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.	No Value	No Value
	Objective 1: Develop, throughout the course as applicable, systematic problem solving methods.	No Value	No Value
	Objective 2: Solve problems involving arithmetic operations, including fractions, percents and decimals.	No Value	No Value
	Objective 3: Apply the order of operations to evaluate signed numerical expressions.	No Value	No Value
	Objective 4: Solve problems involving operations with signed numbers.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 5: Explore the characteristics and properties of real numbers.	No Value	No Value
	Objective 6: Use estimation to determine approximate solutions and to check the reasonableness of answers.	No Value	No Value
❗	**Objective 7: Explore rates and ratios and use proportions to solve problems.**	No Value	B. Summarize diesel engine history and theory 2. The Diesel cycle
	Objective 8: Explore, as applicable throughout the course, the geometry of mathematical measurements and solve problems involving geometric figures and formulas.	No Value	No Value
	Objective 9: Explore the use of variables in expressions and evaluate algebraic expressions.	No Value	No Value
	Objective 10: Solve linear equations in one variable numerically and algebraically.	No Value	No Value
	Objective 11: Graph linear relationships on a Cartesian coordinate by plotting ordered pairs.	No Value	No Value
	Objective 12: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.	No Value	No Value

G-Matrix Form

Changed	Questions	Current Version	Proposed Version
	If the requisite does not fall under an A-F Matrix, download the Content Review Matrix G from the Reference Materials, and follow the remaining instructions on the form. If a requisite falling under Matrix G is being removed, provide an explanation as to why.	No Value	No Value

H-Matrix Form

Changed	Questions	Current Version	Proposed Version
	Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc… list the prerequisite(s) to participate in the program.	No Value	No Value
	Objective 2: For Student Cohorts, such as Honors, Puente, performance groups, intercollegiate teams, Special Projects course, etc… list the prerequisite(s) to participate in the cohort.	No Value	No Value
	Objective 3: For Prerequisites based on Government/Licensing/Certification Regulations, or legal requirements, cite the regulation that mandates a prerequisite or attach a copy of it to this form.	No Value	No Value
	Objective 4: For Prerequisites based on Health and Safety, describe the specific skills, concepts, and information without which the students would create a hazard to themselves or those around them. Also describe how students will meet those skills, i.e. such as a course.	No Value	No Value

De Anza GE Form

Changed	Questions	Current Version	Proposed Version
	Criteria 1: Present core concepts and scope that define the discipline. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Criteria 2: Foster oral and written communication and collaborative exercises. Note that this criteria has three separate pieces: oral communication, written communication, and collaborative exercises. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)	No Value	No Value
	Criteria 3: Stimulate critical thinking. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)	No Value	No Value
	Criteria 4: Include diverse perspectives and contributions in the discipline such as: gender, culture, values, and/or societal perspectives. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)	No Value	No Value
	Criteria 5: Provide global and historical context. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)	No Value	No Value
	Criteria 6: Use real-world or hands-on applications that will provide a context for the concepts being discussed. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)	No Value	No Value

De Anza GE - ESGC Form

Changed	Questions	Current Version	Proposed Version
	Criteria 1: Explain the interconnectivity of economic prosperity, social equity and environmental quality.	No Value	No Value
	Criteria 2: Identify the most serious environmental, equity, and social justice problems globally and locally and explain their underlying causes and possible consequences.	No Value	No Value
	Criteria 3: Explain some significant ways students can make a difference in making a positive impact, locally, at a state level, or globally in making the world more environmentally sustainable and socially just.	No Value	No Value
	Criteria 4: Analyze how the well being of human society is dependent on sustainable social and ecological systems.	No Value	No Value
	Criteria 5: Demonstrate an understanding of how the student's personal activities impact the environment and communities by participating in actions to create a more environmentally sustainable and equitable future.	No Value	No Value

Comments

Changed	Questions	Current Version	Proposed Version
	Stage 2: Department Chair	No Value	No Value
	Stage 3: Division Curriculum Representative	No Value	No Value
	Stage 4: Division Dean	No Value	No Value
	Stage 5: SLO Coordinator	No Value	No Value

Changed	Questions	Current Version	Proposed Version					
❗	**Stage 7: Content Review Matrix Liaison**	No Value	**Date**	**Name - Role OR Tab**	**Part - Field**	**Type of Edit**	**Edit**	**Initiator - Indicate "Y" When Completed**
			3/25/24	Zack Judson	Matrix B	Required	Can you please clarify how describing fuel subsystems requires students to use a multi-step writing process. I am certain that fuel subsystems themselves involve a multi-step process, but none of the assignments or the details under the outline seem to give any indication that students will need to use a process of writing an outline, a rough draft, revising a rough draft and a final draft. Please feel free to email me if you feel we should discuss any of my misunderstandings.	incomplete 4/5/25 -zj no explanation provided nor changes made
			4/5/24	Zack Judson	Matrix C and/or Req/Adv	Required	Clarify whether your English advisory is ESL 261 etc or ESL 272 etc.	
	Stage 8: AVP - Instruction	No Value	No Value					
	Stage 9: Articulation Officer	No Value	No Value					
	Stage 11: ESGC Faculty Coordinator	No Value	No Value					
	Stage 14: Curriculum Committee	No Value	No Value					

Course Administration Codes

Articulation occurs after course approval. The following fields will not show a Proposed Version.

Changed	Field	Current Version
	Curriculum ID	AUTOD067J
	Distance Education Approved	No
	Board of Trustees Approval Date	
	Curriculum Committee Approval Date	
	Time to Next Review	Sep 1, 2023 12:00:00 AM
	External Review Approval Date	Sep 1, 2018 12:00:00 AM
	Course Control Number	CCC000536406

Articulation

Changed	Field	Current Version
	Course Crosswalk CRS-DEPT-NAME	
	Course Crosswalk CRS-NUMBER	

De Anza College

Change Report

05/31/2024

Summary of Changes

Section	Changed field
General Information	Faculty Initiator
General Information	Effective Term
General Information	Course Description
General Information	Course Type (CB27)
General Information	Mode of Delivery
Faculty Requirements	Discipline 1
Faculty Requirements	FSA
Specifications	Methods of Instruction
Specifications	Methods of Evaluation
Specifications	Examples of Primary Texts and References
Specifications	Suggested Reading List
Curriculum Office	Banner Start Term (202122)
Curriculum Office	Banner Division
Curriculum Office	Catalog Term (21-22)
Curriculum Office	5 Year Revision Year (2021)
Curriculum Office	Effective Quarter
Curriculum Office	Effective Year (2021)
Curriculum Office	Course Status Code
Curriculum Office	Banner Department
Curriculum Office	Course Level
Curriculum Office	College Code
Curriculum Office	CTE Status
Curriculum Office	Emergency Approval
Curriculum Office	Repeat Status (N = Not Repeatable; T = Repeatable for Max Times Only; B = Repeatable for Max Times/Units; U = Repeatable for Max Units Only; Y = Yearly Repeatable Restriction)
Curriculum Office	Repeat Type (N = Non-repeatable Credit; A = Activity/Other Repeatable; F = Family Non-repeatable Credit; G = Family Activity/Other Repeatable; L = Legally Mandated Training)
Curriculum Office	Hours Statement (Three hours lecture, three hours laboratory (72 hours total per quarter).)
Curriculum Office	Noncredit Enhanced Funding Indicator
Curriculum Office	In Service Indicator
Curriculum Office	Sports/Physical Education Course Indicator
Curriculum Office	COA Code
Curriculum Office	Fund Code

Section	Changed field
Curriculum Office	Organization Code
Curriculum Office	Account Code
Curriculum Office	Program Code
Curriculum Office	Percent
Curriculum Office	Print/No Print to Catalog
Summary of Revisions	Basic Course Information
Summary of Revisions	Specifications
H-Matrix Form	Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc… list the prerequisite(s) to participate in the program.
Comments	Stage 7: Content Review Matrix Liaison
Stand-Alone Statement	Stand-Alone Statement
CTE Course	Is this a CTE (Career Technical Education) course?
Honors/Non-honors Course	Is this an honors/non-honors course?
Mirrored Credit/Noncredit Course	Is this a mirrored credit/noncredit course?
Cross-listed Course	Is this a cross-listed course?
Stand-Alone Statement	Stand-Alone Statement

General Information

Changed	Field	Current Version	Proposed Version
!	**Faculty Initiator**	• eLumenData, eLumenData	• Dave Capitolo
	Course ID (CB01A and CB01B)	APRND067J	APRND067J
	Course Control Number	CCC000566340	CCC000566340
	Course Title (CB02)	Introduction to Automotive and Light Truck Diesel Systems	Introduction to Automotive and Light Truck Diesel Systems
	Short Course Title	INTRO TO AUTO/LIGHT TRUCK	INTRO TO AUTO/LIGHT TRUCK
	TOP Code (CB03)	0948.00	0948.00 Automotive Technology
	CIP Code	Automobile/Automotive Mechanics Technology/Technician	47.0604 Automobile/Automotive Mechanics Technology/Technician
	Department	APRN - Auto. Apprenticeship	APRN - Auto. Apprenticeship
!	**Effective Term**	Fall 2021	Fall ~~2021~~ 2025
	SAM Priority Code (CB09)	Apprenticeship	Apprenticeship
!	**Course Description**	As of January 2010, California state law required light duty diesel powered vehicles to be included in the smog check program. Diesel's higher efficiency is moving these vehicles' highway mileage to over 40 miles per gallon. Chevrolet, Jeep and Mazda are all adding diesel powered vehicles into their new car line-up. This course will consist of lectures and laboratory demonstrations. Providing our students with the necessary skills to maintain and repair light duty diesel vehicles. Diesel training will give students new abilities that are required to be successful in their careers in the automotive industry.	~~As of January 2010, California state law required light duty diesel powered vehicles to be included in the smog check program. Diesel's higher efficiency is moving these vehicles' highway mileage to over 40 miles per gallon. Chevrolet, Jeep and Mazda are all adding diesel powered vehicles into their new car line-up.~~ This course will consist of lectures and laboratory demonstrations. Providing our students with the necessary skills to maintain and repair light duty diesel vehicles. Diesel training will give students new abilities that are required to be successful in their careers in the automotive industry.

Changed	Field	Current Version	Proposed Version
!	**Course Type (CB27)**	No value	• Lower Division
!	**Mode of Delivery**	• NA	• In person ONLY

Faculty Requirements

Changed	Field	Current Version	Proposed Version
!	**Discipline 1**	No value	• Automotive Technology
	Discipline 2	No value	No value
	Discipline 3	No value	No value
!	**FSA**	No value	• FHDA FSA - AUTO TECH

Course Justification

Changed	Field	Current Version	Proposed Version
	Course Justification	This is an apprenticeship course that is only offered to a target population of students who have been approved for the Automotive Technologies Apprenticeship Program. It is also intended to better prepare students for work in the automotive industry in the areas of light truck and automotive diesel systems, as advised by our industry advisory committee.	This is an apprenticeship course that is only offered to a target population of students who have been approved for the Automotive Technologies Apprenticeship Program. It is also intended to better prepare students for work in the automotive industry in the areas of light truck and automotive diesel systems, as advised by our industry advisory committee.

Foothill Equivalency

Changed	Field	Current Version	Proposed Version
	Does the course have a Foothill equivalent?	No	No
	Foothill Faculty Consultation Name	No value	
	Foothill Course ID	No value	

Course Philosophy

Changed	Field	Current Version	Proposed Version
	Course Philosophy	No value	

Formerly Statement

Changed	Field	Current Version	Proposed Version
	Formerly Statement	No value	

Stand-Alone Statement

Changed	Field	Current Version	Proposed Version
	Stand-Alone Statement	No value	This course is intended to educate automotive technicians who work at a union shop so these students can complete their apprenticeship program and become journeyman technicians.

CTE Course

Changed	Field	Current Version	Proposed Version
!	**Is this a CTE (Career Technical Education) course?**	No value	Yes

Honors/Non-honors Course

Changed	Field	Current Version	Proposed Version
!	**Is this an honors/non-honors course?**	No value	No

Mirrored Credit/Noncredit Course

Changed	Field	Current Version	Proposed Version
!	**Is this a mirrored credit/noncredit course?**	No value	Yes - don't forget to duplicate the revisions in the mirrored credit/noncredit course

Cross-listed Course

Changed	Field	Current Version	Proposed Version
!	**Is this a cross-listed course?**	No value	No

More Options

Changed	Field	Current Version	Proposed Version
	Basic Skill Status (CB08)	Course is not a basic skills course.	Course is not a basic skills course.
	Course Prior To College Level	Not applicable.	Not applicable.
	Course Special Class Status (CB13)	Course is not a special class.	Course is not a special class.
	Course Support Status (CB26)	Course is not a support course	Course is not a support course
	Repeat Limit	0	0
	Grade Options	• Letter Grade • Pass/No Pass	• Letter Grade • Pass/No Pass

Changed	Field	Current Version	Proposed Version
	Allow Students to Gain Credit by Exam/Challenge	☐	☐
	Repeatability Statement	No value	

Stand-Alone Statement

Changed	Field	Current Version	Proposed Version
	Stand-Alone Statement	This course has been identified as a stand-alone course, which means that it is not listed on any GE pattern and/or a certificate and degree program. Please address the following to complete this area: 1. An explanation as to why this course does not fit into a certificate/degree or GE; 2. The purpose of this course; 3. Who your audience will be.	~~This course has been identified as a stand-alone course, which means that it is not listed on any GE pattern and/or a certificate and degree program. Please address the following to complete this area: 1. An explanation as to why this course does not fit into a certificate/degree or GE; 2. The purpose of this course; 3. Who your audience will be.~~

Associated Programs

Changed	Field	Current Version	Proposed Version
	Course is part of a program	No value	No value

Transferability & Gen. Ed. Options

Changed	Field	Current Version	Proposed Version
	Transfer Status (CB05)	Transferable to CSU only	Transferable to CSU only
	Course General Education Status (CB25)	Y	Y
	Transfer Status	Approved	Approved
	GE Information	No value	No value

Weekly Student Hours - Profile Name: Default Profile

Changed	Field	Current Version	Proposed Version
	Lecture Hours - In Class	4.5	4.5
	Lecture Hours - Out of Class	9	9
	Laboratory Hours - In Class	0	0
	Laboratory Hours - Out of Class	0	0
	NA Hours - In Class	0	0
	NA Hours - Out of Class	0	0

Course Student Hours - Profile Name: Default Profile

Changed	Field	Current Version	Proposed Version
	Course Duration (Weeks)	12	12
	Hours per unit divisor	36	36
	Total Student Learning Hours	162	162
	Lecture Hours - Course In-Class (Contact) per Term	54	54
	Lecture Hours - Course Out-of-Class per Term	108	108
	Laboratory Hours - Course In-Class (Contact) per Term	0	0
	Laboratory Hours - Course Out-of-Class per Term	0	0
	NA Hours - Course In-Class (Contact) per Term	0	0
	NA Hours - Course Out-of-Class per Term	0	0
	Total - Course In-Class (Contact) Hours	54	54
	Total - Course Out-of-Class Hours	108	108
	Total Credit Units - Minimum Credit Units	4.5	4.5
	Total Credit Units - Maximum Credit Units	4.5	4.5

Speciality Hours

Changed	Field	Current Version	Proposed Version
	Speciality Hours	No value	No value

Credit / Non-Credit Options

Changed	Field	Current Version	Proposed Version
	COURSE CLASSIFICATION STATUS	Credit Course.	Credit Course.
	Course Credit Status (CB04)	Credit - Degree Applicable	Credit - Degree Applicable
	Course Non Credit Category (CB22)	Credit Course.	Credit Course.
	Funding Agency Category (CB23)	Not Applicable.	Not Applicable.

Changed	Field	Current Version	Proposed Version
	Cooperative Work Experience Education Status (CB10)	☐	☐
	Variable Credit Course	☐	☐

Credit Units

Changed	Field	Current Version	Proposed Version
	Course Duration (Weeks)	12	12
	Total Lecture Hours per Term	162	162
	Total Laboratory Hours per Term	-	0
	Total Contact Hours per Term	-	0
	Total Credit Units	4.5	4.5
	Minimum Credit Units	4.5	4.5
	Maximum Credit Units	4.5	4.5

SKIP

Changed	Field	Current Version	Proposed Version
	SKIP	No Value	No Value

Specifications

Changed	Field	Current Version	Propos
❗	Methods of Instruction	**Methods of Instruction** **Methods of Instruction**: Lecture and visual aids Discussion of assigned reading Discussion and problem solving performed in class Quiz and examination review performed in class Collaborative learning and small group exercises	**Metho of Instru** **Metho of Instru**

Changed	Field	Current Version	Propos
	Assignments	1. Reading from text and guided discussions to build diesel systems' knowledge 2. Safety test used to insure personal responsibility in a shop setting 3. Two quizzes that test knowledge retention with formalized review and outcome discussions 4. 6 worksheets focusing on reading materials and problem solving. The worksheets include multiple choice questions, fill in the blanks and written sections. 5. Informational handouts 6. Researching assigned topics	1. R d s 2. S p s 3. T k fc d 4. 6 re s in q w 5. In 6. R
	Methods of Evaluation	**Methods of Evaluation** **Methods of Evaluation** 1. Accuracy of data on the quizzes and test to recognize key ideas and evaluate the author's theories as they relate to practical applications 2. Completeness of all worksheets demonstrating the importance of correctly finishing given tasks 3. Demonstrating through understanding of the research topic, including documentation to support the conclusions 4. Accumulative final exam, re-examining the course's main ideas and demonstrating complete understanding of diesel theory	**Metho of Evalu** **Metho of Evalu**

Changed	Field	Current Version	Propos
	Essential Student Materials/Essential College Facilities	**Essential Student Materials:** • Safety glasses for lab demonstrations **Essential College Facilities:** • Smart classroom • Access to laboratory for demonstrations • Stationary diesel engine • Diesel compression tester • Diesel injector nozzle tester	**Essent** • S d **Essent** • S • A d • S • D • D
	Examples of Primary Texts and References	**Title**: No value **Author**: Bennett, S., Modern Diesel Technology: Light Duty Diesels Clifton park, NY: Cengage 1st Edition 2012. ISBN: 1435480473. **Publisher**: No value **Date/Edition**: No value **ISBN**: No value	**Title** **Autho** **Publis** **Date/E** **ISBN**
	Suggested Reading List	**Reading List**: All DATA electronic information system (WEB based), http://library.alldatapro.com/alldata/LIB~C8951~R0~OD~N/0/34870081/56415648/56416313/56416327/34853741 **May include, but are not limited to**: No value **Reading List**: Manufacturer's shop manuals as required. **May include, but are not limited to**: No value **Reading List**: Shopkey electronic information system (WEB based), http://www.shopkey5.com/mric/trypreauth.asp **May include, but are not limited to**: No value	No valu

Learning Outcomes and Objectives

Changed	Field	Current Version	Proposed Version
	Course Objectives	• Practice shop and personal safety • Summarize diesel engine history and theory • Analyze intake and exhaust systems • Describe fuel subsystems • Critique injector nozzle construction • Identify engine electronics • Demonstrate Emission Controls • Justify servicing and maintenance	• Practice shop and personal safety • Summarize diesel engine history and theory • Analyze intake and exhaust systems • Describe fuel subsystems • Critique injector nozzle construction • Identify engine electronics • Demonstrate Emission Controls • Justify servicing and maintenance

Changed	Field	Current Version	Proposed Version
	CSLOs	**CSLOs** Demonstrate the ability to understand diesel theory. **Expected SLO Performance** 0.0	**CSLOs** Demonstrate the ability to understand diesel theory. **Expected SLO Performance** 0.0
		CSLOs Develop a testing system to systematically trouble shoot diesel fuel systems. **Expected SLO Performance** 0.0	**CSLOs** Develop a testing system to systematically trouble shoot diesel fuel systems. **Expected SLO Performance** 0.0

Course Outline

Changed	Field	Current Version	Proposed Version
	Course Content	1. Practice shop and personal safety 1. Safety rules 2. Personal safety equipment 3. Fire Safety 4. General shop precautions 2. Summarize diesel engine history and theory 1. Diesel engine terms 2. The Diesel cycle 3. Engine systems and circuits 4. Modern Diesel engine 3. Analyze intake and exhaust systems 1. Air intake components 2. Turbochargers 3. Charge air coolers 4. Exhaust gas recirculation 5. Valve design 4. Describe fuel subsystems 1. Fuel tanks 2. Fuel filters 3. Fuel charging/transfer pumps 5. Critique injector nozzle construction 1. Port-Helix metering pumps 2. Injection pump components 3. Delivery, injection and combustion 4. Opposed-plunger, inlet-metering injection pumps 5. Roosa DB2 6. Sleeve-metering, single plunger distributor pumps 6. Identify engine electronics 1. Electronic unit injectors 2. Input circuit 3. HEUI 4. Common rail fuel systems 5. PCM 6. Output circuits 7. Multiplexing 7. Demonstrate Emission Controls 1. What is smog? 2. Diesel engine emission control 3. Catalytic converters 4. Selective catalytic reduction 5. Smoke analysis 8. Justify servicing and maintenance 1. Start-up and engine break-in 2. Air intake system maintenance 3. Engine lube system 4. Cooling system service 5. Fuel system maintenance 6. Selective catalytic reduction 7. Diesel particulate filter service	1. Practice shop and personal safety 1. Safety rules 2. Personal safety equipment 3. Fire Safety 4. General shop precautions 2. Summarize diesel engine history and theory 1. Diesel engine terms 2. The Diesel cycle 3. Engine systems and circuits 4. Modern Diesel engine 3. Analyze intake and exhaust systems 1. Air intake components 2. Turbochargers 3. Charge air coolers 4. Exhaust gas recirculation 5. Valve design 4. Describe fuel subsystems 1. Fuel tanks 2. Fuel filters 3. Fuel charging/transfer pumps 5. Critique injector nozzle construction 1. Port-Helix metering pumps 2. Injection pump components 3. Delivery, injection and combustion 4. Opposed-plunger, inlet-metering injection pumps 5. Roosa DB2 6. Sleeve-metering, single plunger distributor pumps 6. Identify engine electronics 1. Electronic unit injectors 2. Input circuit 3. HEUI 4. Common rail fuel systems 5. PCM 6. Output circuits 7. Multiplexing 7. Demonstrate Emission Controls 1. What is smog? 2. Diesel engine emission control 3. Catalytic converters 4. Selective catalytic reduction 5. Smoke analysis 8. Justify servicing and maintenance 1. Start-up and engine break-in 2. Air intake system maintenance 3. Engine lube system 4. Cooling system service 5. Fuel system maintenance 6. Selective catalytic reduction 7. Diesel particulate filter service
	Lab Component in this Course	No	No
	Lab Outline	No value	No value

Req/Adv

Changed	Questions	Current Version	Proposed Version
	Prerequisite(s):	No Value	No Value
	Corequisite(s):	No Value	No Value
	Advisory(ies):	No Value	No Value
	Advisory(ies) - Other:	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Limitation(s) on Enrollment:	(Open only to apprentices in the Automotive Technologies Apprenticeship Program (an approved program by the Division of Apprenticeship Standards).)	(Open only to apprentices in the Automotive Technologies Apprenticeship Program (an approved program by the Division of Apprenticeship Standards).)
	Limitation(s) on Enrollment - Other:	No Value	No Value
	Entrance Skills(s):	No Value	No Value
	Entrance Skill(s) - Other:	No Value	No Value
	General Course Statement(s):	No Value	No Value
	General Course Statement(s) - Other:	No Value	No Value

Curriculum Office

Changed	Questions	Current Version	Proposed Version
!	**Banner Start Term (202122)**	202122	No Value
!	**Banner Division**	2AT	No Value
!	**Catalog Term (21-22)**	21-22	No Value
!	**5 Year Revision Year (2021)**	2018	No Value
!	**Effective Quarter**	Fall	No Value
!	**Effective Year (2021)**	2014	No Value
	Sort ID (00 < 10; 0 < 100)	APRN 067J	APRN 067J
	Course Status	Non-substantial	Non-substantial
!	**Course Status Code**	A	No Value
!	**Banner Department**	AUTO	No Value
!	**Course Level**	DU	No Value
!	**College Code**	DA	No Value
	Course Characteristics	CTE	CTE
	Cross-Listed/Related Course Information	NA	NA
	Cross-Listed/Related Course ID's	No Value	No Value
!	**CTE Status**	Yes	No Value
	DL Approval Date (MM/DD/YYYY)	No Value	No Value
	Hybrid Approval Date (MM/DD/YYYY)	No Value	No Value
!	**Emergency Approval**	No	No Value

Changed	Questions	Current Version	Proposed Version
!	**Repeat Status (N = Not Repeatable; T = Repeatable for Max Times Only; B = Repeatable for Max Times/Units; U = Repeatable for Max Units Only; Y = Yearly Repeatable Restriction)**	N	No Value
!	**Repeat Type (N = Non-repeatable Credit; A = Activity/Other Repeatable; F = Family Non-repeatable Credit; G = Family Activity/Other Repeatable; L = Legally Mandated Training)**	N	No Value
!	**Hours Statement (Three hours lecture, three hours laboratory (72 hours total per quarter).)**	Four and one-half hours lecture (54 hours total per quarter).	No Value
!	**Noncredit Enhanced Funding Indicator**	N	No Value
!	**In Service Indicator**	N	No Value
!	**Sports/Physical Education Course Indicator**	N	No Value
!	**COA Code**	C	No Value
!	**Fund Code**	114000	No Value
!	**Organization Code**	236503	No Value
!	**Account Code**	1320	No Value
!	**Program Code**	094800	No Value
!	**Percent**	100	No Value
	Curriculum Office Notes	No Value	No Value
!	**Print/No Print to Catalog**	Yes	No Value

Summary of Revisions

Changed	Questions	Current Version	Proposed Version
!	**Basic Course Information**	No Value	Description update Course justification update
	Units and Hours	No Value	No Value
!	**Specifications**	No Value	Updated textbooks and references to reflect current publications
	Outline	No Value	No Value
	Other	No Value	No Value

Blue Form

Changed	Questions	Current Version	Proposed Version
	For changes to the units and hours tab; 1) Contact the Curriculum Office at curriculum@fhda.edu with the course information changes; and 2) address items 1-3 below. Please be aware that load factors and seat counts are assigned based on established, negotiated values.	No Value	No Value
	1. Is the unit(s) change required for articulation?	No Value	No Value
	2. If the course is UC or CSU transferable, identify one UC or CSU campus with the same unit value requested and copy and paste the catalog description of the course.	No Value	No Value
	3. Identify the areas in the course outline of record that justify the unit(s) and/or hour(s) change.	No Value	No Value
	Office Use ONLY: For a REVISION, state the existing unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.	No Value	No Value
	Office Use ONLY: For a REVISION, state the new unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.	No Value	No Value
	Office Use ONLY: For NEW, state the unit(s); lec hour(s) and load; lab hour(s) and load; and seat count.	No Value	No Value

A-Matrix Form

Changed	Questions	Current Version	Proposed Version
	EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 1: Analyze college level texts and discourse that are culturally and rhetorically diverse.	No Value	No Value
	Objective 2: Compose essays drawn from personal experience and assigned texts.	No Value	No Value
	Objective 3: Utilize MLA guidelines to format essays, cite sources, and compile a works cited page.	No Value	No Value
	Objective 4: Create syntactically varied sentences that are free of mechanical errors.	No Value	No Value
	Objective 5: Distinguish, compare, and evaluate the multiplicity and ambiguity of perspectives.	No Value	No Value

B-Matrix Form

Changed	Questions	Current Version	Proposed Version
	ESL D272. and ESL D273., or ESL D472. and ESL D473., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.	No Value	No Value
	Objective 1: Analyze a variety of college-level texts with a focus predominantly on expository and argumentative writing.	No Value	No Value
	Objective 2: Develop analytical ideas and topics for essays.	No Value	No Value
	Objective 3: Compose and support thesis statements for analytical essays.	No Value	No Value
	Objective 4: Develop clear sequential relationship between central argument/controlling idea and supporting ideas in writing.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 5: Identify and practice writing for different audiences and purposes.	No Value	No Value
	Objective 6: Develop and demonstrate a variety of rhetorical strategies to develop strong analysis in essays.	No Value	No Value
	Objective 7: Demonstrate writing as a multi-step process including attention to planning and revision.	No Value	No Value
	Objective 8: Practice composing organized, developed, analytical essays that increase in complexity.	No Value	No Value
	Objective 9: Demonstrate appropriate grammar usage and mechanics.	No Value	No Value

C-Matrix Form

Changed	Questions	Current Version	Proposed Version
	ESL D261. and ESL D265., or ESL D461. and ESL D465., or eligibility for EWRT D001A or EWRT D01AH or ESL D005. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.	No Value	No Value
	Objective 1: Create compositions about fiction and non-fiction texts from many cultural and social perspectives in a variety of genres.	No Value	No Value
	Objective 2: Compose a focused, purposeful, developed paper of 500 words or more that engages with, responds to, or is inspired by written or visual texts.	No Value	No Value
	Objective 3: Produce written work using a cyclical process of multiples drafts and revisions.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 4: Demonstrate the ability to include a variety of sentence structures in writing.	No Value	No Value
	Objective 5: Edit compositions to correct errors in the major conventions of Standard Written English.	No Value	No Value

D-Matrix Form

Changed	Questions	Current Version	Proposed Version
	Intermediate algebra or equivalent (or higher), or appropriate placement beyond intermediate algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.	No Value	No Value
	Objective 1: Plan, implement, and assess work cycles, at the problem, lesson, module, and course level, to develop self-efficacy through the practice of self-regulated learning.	No Value	No Value
	Objective 2: Investigate the use of mathematics in real world.	No Value	No Value
	Objective 3: Explore functions.	No Value	No Value
	Objective 4: Develop linear function models.	No Value	No Value
	Objective 5: Use systems of two linear equations to solve real world problems.	No Value	No Value
	Objective 6: Use linear inequalities in one variable to solve real world problems.	No Value	No Value
	Objective 7: Examine exponential expressions and develop exponential function models.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 8: Examine logarithmic expressions and develop logarithmic function models.	No Value	No Value
	Objective 9: Develop quadratic function models to solve problems.	No Value	No Value
	Objective 10: Investigate the characteristics of rational expressions.	No Value	No Value
	Objective 11: Develop skills to work with radical expressions.	No Value	No Value

E-Matrix Form

Changed	Questions	Current Version	Proposed Version
	Elementary algebra or equivalent (or higher), or appropriate placement beyond elementary algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.	No Value	No Value
	Objective 1: Develop, throughout the course as applicable, systematic problem-solving methods.	No Value	No Value
	Objective 2: Explore the function concept algebraically, numerically, verbally and graphically.	No Value	No Value
	Objective 3: Explore the graphical and numerical characteristics of linear relationships and describe their meaning in the context of a problem.	No Value	No Value
	Objective 4: Develop linear function models to solve problems.	No Value	No Value
	Objective 5: Use systems of two linear equations to solve real-world problems.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 6: Explore the graphical and numerical characteristics of quadratic relationships and describe their meaning in the context of a problem.	No Value	No Value
	Objective 7: Develop quadratic function models to solve problems.	No Value	No Value
	Objective 8: Use inequalities to solve real world problems.	No Value	No Value
	Objective 9: Explore arithmetic sequences and series.	No Value	No Value
	Objective 10: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.	No Value	No Value

F-Matrix Form

Changed	Questions	Current Version	Proposed Version
	Pre-algebra or equivalent (or higher), or appropriate placement beyond pre-algebra. If this is the requisite for the course, complete the objective(s) below. If this requisite is being removed, provide an explanation as to why.	No Value	No Value
	Objective 1: Develop, throughout the course as applicable, systematic problem solving methods.	No Value	No Value
	Objective 2: Solve problems involving arithmetic operations, including fractions, percents and decimals.	No Value	No Value
	Objective 3: Apply the order of operations to evaluate signed numerical expressions.	No Value	No Value
	Objective 4: Solve problems involving operations with signed numbers.	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Objective 5: Explore the characteristics and properties of real numbers.	No Value	No Value
	Objective 6: Use estimation to determine approximate solutions and to check the reasonableness of answers.	No Value	No Value
	Objective 7: Explore rates and ratios and use proportions to solve problems.	No Value	No Value
	Objective 8: Explore, as applicable throughout the course, the geometry of mathematical measurements and solve problems involving geometric figures and formulas.	No Value	No Value
	Objective 9: Explore the use of variables in expressions and evaluate algebraic expressions.	No Value	No Value
	Objective 10: Solve linear equations in one variable numerically and algebraically.	No Value	No Value
	Objective 11: Graph linear relationships on a Cartesian coordinate by plotting ordered pairs.	No Value	No Value
	Objective 12: Investigate, throughout the course as applicable, how mathematics has developed as a human activity around the world.	No Value	No Value

G-Matrix Form

Changed	Questions	Current Version	Proposed Version
	If the requisite does not fall under an A-F Matrix, download the Content Review Matrix G from the Reference Materials, and follow the remaining instructions on the form. If a requisite falling under Matrix G is being removed, provide an explanation as to why.	No Value	No Value

H-Matrix Form

Changed	Questions	Current Version	Proposed Version
!	**Objective 1: For entrance into a CTE program such as Nursing, AUTO, APRN, etc… list the prerequisite(s) to participate in the program.**	No Value	Employed by local 1101 Union or employed by the City of San Jose
	Objective 2: For Student Cohorts, such as Honors, Puente, performance groups, intercollegiate teams, Special Projects course, etc… list the prerequisite(s) to participate in the cohort.	No Value	No Value
	Objective 3: For Prerequisites based on Government/Licensing/Certification Regulations, or legal requirements, cite the regulation that mandates a prerequisite or attach a copy of it to this form.	No Value	No Value
	Objective 4: For Prerequisites based on Health and Safety, describe the specific skills, concepts, and information without which the students would create a hazard to themselves or those around them. Also describe how students will meet those skills, i.e. such as a course.	No Value	No Value

De Anza GE Form

Changed	Questions	Current Version	Proposed Version
	Criteria 1: Present core concepts and scope that define the discipline. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)	No Value	No Value

Changed	Questions	Current Version	Proposed Version
	Criteria 2: Foster oral and written communication and collaborative exercises. Note that this criteria has three separate pieces: oral communication, written communication, and collaborative exercises. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)	No Value	No Value
	Criteria 3: Stimulate critical thinking. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)	No Value	No Value
	Criteria 4: Include diverse perspectives and contributions in the discipline such as: gender, culture, values, and/or societal perspectives. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)	No Value	No Value
	Criteria 5: Provide global and historical context. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)	No Value	No Value
	Criteria 6: Use real-world or hands-on applications that will provide a context for the concepts being discussed. (ONLY using the Outline, Assignments or Methods of Evaluation areas, cite, copy and paste the area referenced.)	No Value	No Value

De Anza GE - ESGC Form

Changed	Questions	Current Version	Proposed Version
	Criteria 1: Explain the interconnectivity of economic prosperity, social equity and environmental quality.	No Value	No Value
	Criteria 2: Identify the most serious environmental, equity, and social justice problems globally and locally and explain their underlying causes and possible consequences.	No Value	No Value
	Criteria 3: Explain some significant ways students can make a difference in making a positive impact, locally, at a state level, or globally in making the world more environmentally sustainable and socially just.	No Value	No Value
	Criteria 4: Analyze how the well being of human society is dependent on sustainable social and ecological systems.	No Value	No Value
	Criteria 5: Demonstrate an understanding of how the student's personal activities impact the environment and communities by participating in actions to create a more environmentally sustainable and equitable future.	No Value	No Value

Comments

Changed	Questions	Current Version	Proposed Version
	Stage 2: Department Chair	No Value	No Value
	Stage 3: Division Curriculum Representative	No Value	No Value
	Stage 4: Division Dean	No Value	No Value
	Stage 5: SLO Coordinator	No Value	No Value

Changed	Questions	Current Version	Proposed Version					
	Stage 7: Content Review Matrix Liaison	No Value	**Date**	**Name - Role OR Tab**	**Part - Field**	**Type of Edit**	**Edit**	**Initiator - Indicate "Y" When Completed**
			3/14/24	Zack Judson	Matrix H	Required	List the prerequisites to be in the program	
	Stage 8: AVP - Instruction	No Value	No Value					
	Stage 9: Articulation Officer	No Value	No Value					
	Stage 11: ESGC Faculty Coordinator	No Value	No Value					
	Stage 14: Curriculum Committee	No Value	No Value					

Course Administration Codes

Articulation occurs after course approval. The following fields will not show a Proposed Version.

Changed	Field	Current Version
	Curriculum ID	APRND067J
	Distance Education Approved	No
	Board of Trustees Approval Date	
	Curriculum Committee Approval Date	
	Time to Next Review	Aug 31, 2023 12:00:00 AM
	External Review Approval Date	Sep 1, 2018 12:00:00 AM
	Course Control Number	CCC000566340

Articulation

Changed	Field	Current Version
	Course Crosswalk CRS-DEPT-NAME	
	Course Crosswalk CRS-NUMBER	