

Pedagogical Cap Considerations

BCEA Contract Article 7.1: The District shall have a WSCH/FTE target of 530
(A WSCH target of 530 translates to an average per section student cap of 35)

Without a preponderance of evidence that proves otherwise (such as statistical analysis), ped caps will remain the same. (Curriculum Decision Log 11/5/2012). Complete the yellow highlighted boxes.

Course	# of Sections per Semester	Current Ped Cap	Proposed Ped Cap	Change in Total # of Students	# of New Sections to return to original students
AGS 30	0.25	40	24	16	0*
AGS 50	2	50	24	26	0*

Answer the following questions that support reducing the ped cap for your proposed course(s) *Sections were already limited by room caps.

A: Safety and Compliance Factors Influencing the Enrollment Cap

- 1 Health or safety reasons that the class should be capped at a certain number (example: safety considerations in a welding class).
 - Yes
 - No
 If "Yes", explain:
 AGS 30: Students require extra space and individual attention during the lab portion of the course to perform lab experiments and curate collections that require the use of apparatus and equipment.
 AGS 50: Ped cap change is requested to align current pedagogy for teaching lecture-lab courses. Students require extra space and individual attention during the lab portion of the course to perform lab experiments using apparatus. To insure continued safety for students, no more than 24 students should be enrolled in this lecture-lab class.

- 2 Standards outside of the college calling for specific student-teacher ratios (example: nursing, police, fire).
 - Yes
 - No
 If "Yes", explain:

- 3 External accreditor or advisory panel recommendation on class size.
 - Yes
 - No
 If "Yes", explain:

- 4 Class maximum has already been determined through negotiations.
 - Yes
 - No
 If "Yes", explain:

If you entered "Yes" to any of the above, **stop here**. If you answered "No" to all of the elements above, complete Section B.

B: Instructional and Academic Factors Influencing the Enrollment Cap

1 Total amount of graded work required per week (in pages).

- 15+ 13-15 10-12 6-9 0-5

Answer Yes, No or enter rank and provide an explanation

2 Standards outside of the college calling for specific student-teacher ratios (example: nursing, police, fire).

- Substantial Above Average Average Below Average Minimal

Explain:

3 Discussion/group participation is required and graded.

Yes

No

If "Yes", explain:

4 Every student is evaluated individually on a set of skills (e.g., technical competencies, presentation skills, composition).

Yes

No

If "Yes", explain:

5 Course is designed for a special population of students who require a smaller class size to achieve the goals and intent of the course.

Yes

No

If "Yes", explain:

6 Course is designed for underprepared students who may need additional attention or assistance.

Yes

No

If "Yes", explain:

7 Course outcomes anticipate demand of more higher order, complex thinking skills from students who may therefore need additional guidance from the instructor.

Yes

No

If "Yes", explain:

8 Additional Considerations:

9 Please include comparable course ped caps from similar colleges, as available (attach).

Completed by: [Jennifer Charles-Tollerup 11.19.25](#)

47-1011	First-Line Supervisors of Construction Trades and Extraction Workers
35-1012	First-Line Supervisors of Food Preparation and Serving Workers
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers
39-9031	Fitness Trainers and Aerobics Instructors
11-1021	General and Operations Managers
27-1024	Graphic Designers
39-5012	Hairdressers, Hairstylists, and Cosmetologists
53-3032	Heavy and Tractor-Trailer Truck Drivers
31-1011	Home Health Aides
41-3021	Insurance Sales Agents
51-6011	Laundry and Dry-Cleaning Workers
29-2061	Licensed Practical and Licensed Vocational Nurses
13-1161	Market Research Analysts and Marketing Specialists
11-9111	Medical and Health Services Managers
31-9092	Medical Assistants
29-2071	Medical Records and Health Information Technicians
43-6013	Medical Secretaries
25-2022	Middle School Teachers, Except Special and Career/Technical Education
15-1142	Network and Computer Systems Administrators
39-2021	Nonfarm Animal Caretakers
31-1014	Nursing Assistants
41-2022	Parts Salespersons
39-9021	Personal Care Aides
29-1123	Physical Therapists
47-2152	Plumbers, Pipefitters, and Steamfitters
25-2011	Preschool Teachers, Except Special Education
43-4171	Receptionists and Information Clerks
47-2181	Roofers
11-2022	Sales Managers
21-1093	Social and Human Service Assistants
47-2044	Tile and Marble Setters

Distance Education 0% 1-49% 50-99% 100%

Indicate the extent to which the courses associated with the certificate are conducted via distance education

B. Supporting Documentation *(Attach to proposal as separate documents)*

If under Employment Potential you chose N/A or EDD, skip this step.

If you chose LMID EDD Consultant attach (as supporting documentation) another data source containing current labor market or job availability data with an explanation of how the data is verified by a local Labor Market Information Division (LMID) EDD consultant.

Resource: www.labormarketinfo.ca.gov

C. Instructions for Narrative Section *(Fill in answers below instructions)*

Item 1. Program Goals and Objectives

Identify the goals and objectives of the program. The stated goals and objectives of the program must be consistent with the mission of the community colleges as established by the Legislature in Education Code section 66010.4. Often, colleges will include the program level Student Learning Outcomes (SLOs) in this section that identify the program's goals and objectives.

Based upon the program goals, objectives appropriate to these goals, and program design consistent with these objectives, the determination is made as to whether the proposed program is appropriate to the mission of the local college and community college system. For example, a program must be directed at the appropriate level for community colleges—that is, it must not be directed at a level beyond the certificate or the first two years of college. Similarly, a program must address a valid transfer, occupational, basic skills, civic education, or lifelong learning purpose. The program may not be primarily avocational or recreational. The statement of goals and objectives serves to define the degree over time and is

one of the major factors in determining whether future changes to the degree are considered substantial or nonsubstantial for Chancellor's Office review purposes.

For programs designed for the student not intending to transfer, community colleges may develop degree majors or areas of emphasis that meet community needs and reflect the educational philosophy of the faculty in a discipline or disciplines. The required courses may not be aligned with requirements for transfer, but they may represent a cohesive package of courses in an area of study. If the certificate program goal selected is "Other – Designed to Meet Community Needs," then the statement must, at a minimum, explain in detail how the degree was designed to meet community needs in accordance with the community college mission. Describe how the degree embodies a pattern of learning experiences that are focused on specific capabilities or knowledge areas.

Student Selection and Fees: If the program is selective, describe relevant entry criteria, the selection process for admission to the program, and compliance with provisions of Title 5, sections 55201 and 58106. Similarly, specify all mandatory fees (for materials, insurance, travel, and/or uniforms) that students will incur, for the program as a whole or any of its constituent courses, aside from the ordinary course enrollment fee prescribed in Education Code section 76300.

Item 2. Catalog Description

The catalog description must be entered exactly as it will appear in the college catalog. The description must also:

- Convey the certificate's goal(s) and objectives; suggest how they differ from the goals and objectives of other programs
- Provide an overview of the knowledge and skills that students who complete the requirements must demonstrate (student learning outcomes)
- List all prerequisite skills or enrollment limitations
- Suggest some caveats that students must be aware of where job market data or other factors are documented in the proposal. These warnings must be as clearly conveyed in the catalog description as possible. The catalog description needs to mention any risks, such as occupations that are inherently competitive or low-salaried and/or occupational areas where inexperienced graduates are not generally hired.
- If applicable, reference accrediting and/or licensing standards including an explanation of any departures from the standards. In some occupations, while there is no legal requirement for a license to practice, there is a widely recognized certification provided by a professional association. For example, the American Massage Therapy Association certifies massage therapists; the California Association of Alcohol and Drug Abuse Counselors certify counselors in that field. In these cases, the Chancellor's Office expects that the description will specify whether the program will fully prepare completers for the recognized professional certification.

The description must also convey what students may expect as an outcome. The catalog description represents a commitment to the student. Exaggerated statements must not be included. For a program designed with scaffolds among program awards, ensure the catalog description describes but does not overstate this relationship. Assertions of transfer applicability as well as career applicability must be reasonable and capable of being documented.

Item 3. Program Requirements

The program requirements must be consistent with the catalog description (as entered in Item 2 above). The number of units, specific course requirements and design of individual courses, and the sequence of the courses must be coherent, complete, and appropriate, given the program objectives and the resources with which the college has to work. The Chancellor's Office will rely heavily on the educational judgment of local faculty within the discipline and curriculum committees in regard to the appropriateness of program requirements.

Display the program requirements in a table format that includes all courses required for completion of the program (core requirements and required or restricted electives), subtotal of core hours, and total program hours. For each course, indicate the course department number, course title, and hours.

A **sample** table format (with program requirements and course sequence combined) is shown below (for illustration purposes only):

Certificate of Competency: English as a Second Language

Requirements	Dept. Name/#	Name	Hours
Required Core	ESL 313	ESL Level 3	51
Electives (complete one)	ESL 310	Survival /Life Skills for ESL Students	85
	ESL 311	ESL Level 1	51
	ESL 312	ESL Level 2	51

Required Core Total: 51 hours

One Elective: 51-85 hours

TOTAL HOURS: 102-136

Item 4. Master Planning

Given the stated goals and objectives, this discussion addresses the role the proposed program will fulfill in the college's mission and curriculum offerings, the placement of the proposed program in the district master plan, and how the program is appropriate to the objectives and conditions of higher education and community college education in California by confirming to statewide master planning (pursuant to Title 5 sections 55130(b)(6) and 55130(b)(7)).

This discussion may include some history of the program proposal origins, a description of the program purpose, and/or the program's relevancy for the region and college including related community support.

The proposal must demonstrate a need for the program that meets the stated goals and objectives in the region the college proposes to serve with the degree. Furthermore, a proposed new degree must not cause undue competition with an existing program at another college. Need is determined by multiple factors, including the master plan of the college or district and accreditation standards.

Finally, if the selected program goal is "Other – Designed to meet local community needs," then a description of the community or other need leading to the program development is required.

Fill in the information in the next section: Narrative

Narrative

1. Statement of Program Goals and Objectives

The Non-Credit Early Childhood Education Certificate provides an introduction to essential concepts and best practices in child development and early learning. The program is designed for individuals preparing for careers in childcare and includes courses on child development, family childcare licensing, play-based curriculum, and effective techniques for observing and guiding children's behavior.

2. Catalog Description and Program Level Outcomes

The Non-Credit Early Childhood Education Certificate prepares individuals for careers in child development and early learning. Through focused coursework, students gain foundational knowledge of child development, family childcare licensing, play-based curriculum, and effective methods for observing and guiding children's behavior.

1. Describe key concepts in child development and explain how observation helps caregivers understand and support young children.
2. Identify the basic requirements for operating a family childcare program, including licensing standards, safety expectations, and record-keeping practices.
3. Explain how play supports children's physical, social, emotional, and cognitive growth, and identify ways to create inclusive and culturally responsive play experiences.
4. Demonstrate behavior guidance strategies that promote healthy behavior, strengthen child-caregiver relationships, and support children who experience stress or challenging situations.
5. Explore career pathways in early childhood education and describe how certificates, degrees, and community resources can support long-term professional goals.

3. Program Requirements

Requirements	Course Prefix/#	Title	Hours
Enter Requirement	Course prefix and number	Enter Course Title	Enter hours
Required	CDF 310	Exploring Careers in Child Development	17.00
Required	CDF 315	Introduction to Family Child Care Licensing	17.00
Required	CDF 325	Play-Based Curriculum	17.00
Required	CDF 344	Observing and Guiding Children's Behavior	17.00

4. Master Planning

This certificate aligns with the college's mission to be a student-ready institution. Many community childcare providers work long hours, and high-quality care is essential for young children. These courses offer both licensed and license-exempt providers access to educational and professional development opportunities.

The proposal also supports Butte College's *Strategic Direction #1*, which emphasizes providing high-quality education that equips students with job skills to meet their career and life goals, and *Strategic Direction #6A*, which focuses on strengthening and creating new equity-minded supports and services for racially minoritized and other historically underrepresented student groups.

As stated in the *Statement of Program Goals and Objectives*, this certificate helps community members better understand the regulations governing licensed and license-exempt childcare. When individuals care for children from more than one family without appropriate knowledge or licensing, significant risks can arise. This program addresses that gap by offering education that empowers providers to make informed decisions and deliver high-quality care that extends beyond administrative requirements or CPR certification.

Santa Monica College offers a similar non-credit ECE Skill Builders Program, but there are currently no comparable programs in the North Far North Region. The need for this certificate is clear: most children in the region receive care in license-exempt or Family Child Care Home (FCCH) settings. According to 2023 data, Butte County has 42 child care centers and 89 family child care homes, while Glenn County has 12 centers and 45 family child care homes. License-exempt care, often provided by family members, friends, or neighbors, is difficult to track and typically requires minimal oversight, such as a Live Scan background check, only when care is publicly funded through CalWORKs or Resource and Referral programs. Parents who pay privately face no such requirements. FCCH providers must complete CPR/First Aid certification and a Live Scan clearance, but no formal education is required.


Training in Early Childhood Education (ECE) significantly improves the quality-of-care children receive. This certificate meets a vital community need by promoting safe, developmentally appropriate, and culturally responsive caregiving practices. It represents a cohesive, no-cost series of courses in early care and education designed to serve adult learners, particularly those of color. This work is an integral part of the department's work in the Racial Equity for Adult Credentials in Higher Education initiative, a Guided Pathways project in collaboration with the California Community Colleges Foundation and West Ed, which supports the enrollment and success of adult students of color.

Department Chair Signature:

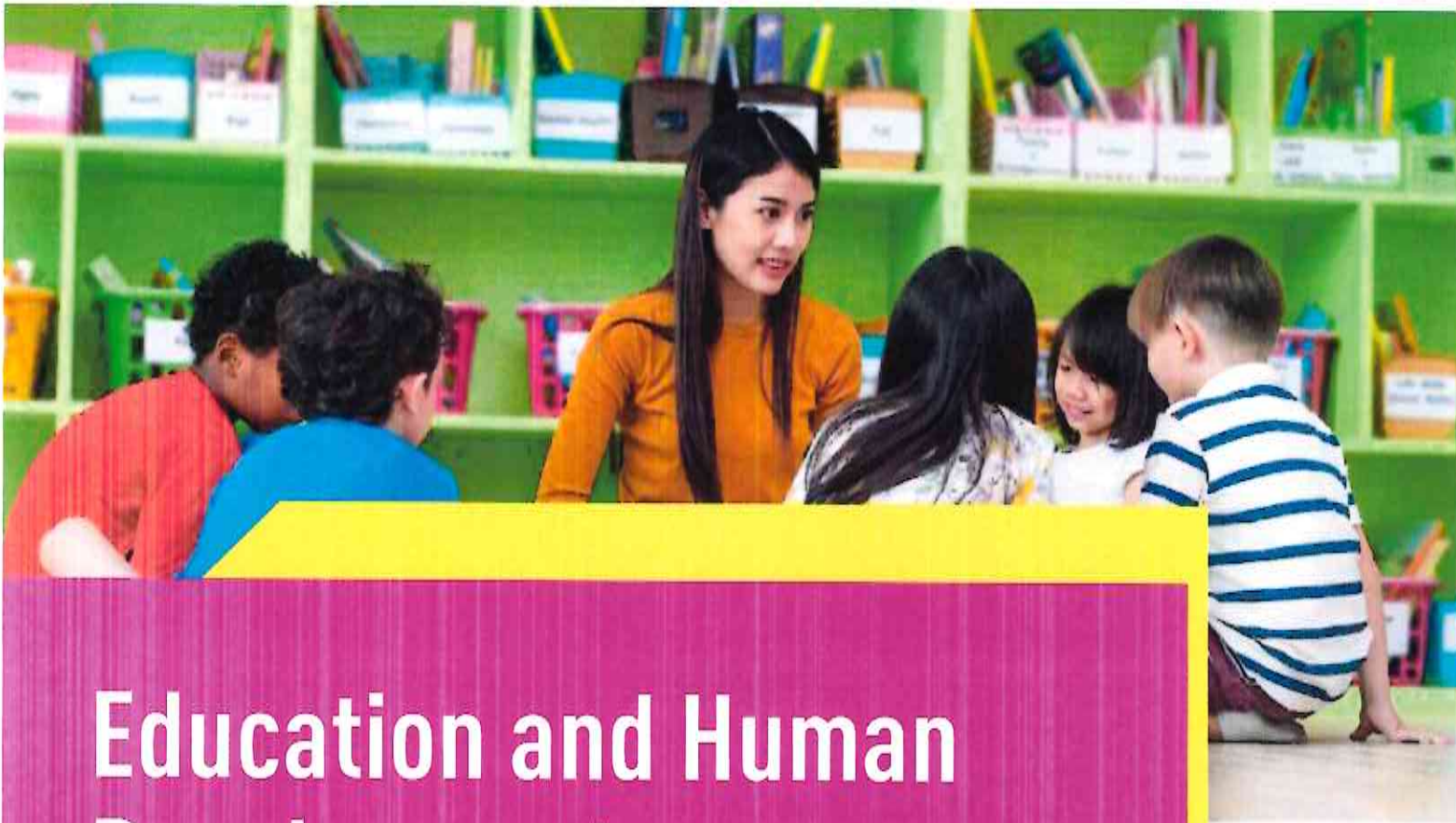


(Your signature certifies that all faculty members in the program have discussed this proposal)

Dean Signature:


Karn Bull (Nov 18, 2025 08:42:10 PST)

Submit this form to Scheduling Center - Office of Instruction (SAS-214)



Education and Human Development

Far North
Subregional Sector Profile



2023



POWERED BY



California
Community
Colleges

FIVE-YEAR OUTLOOK

5%
sector job growth
over next five years

3,100+
annual job openings
over next five years

17%
of Far North's
jobs

This project is supported by Strong Workforce Program (SWP) funding.



Introduction

This sector profile highlights in-demand, middle-skill jobs that pay above a living wage.

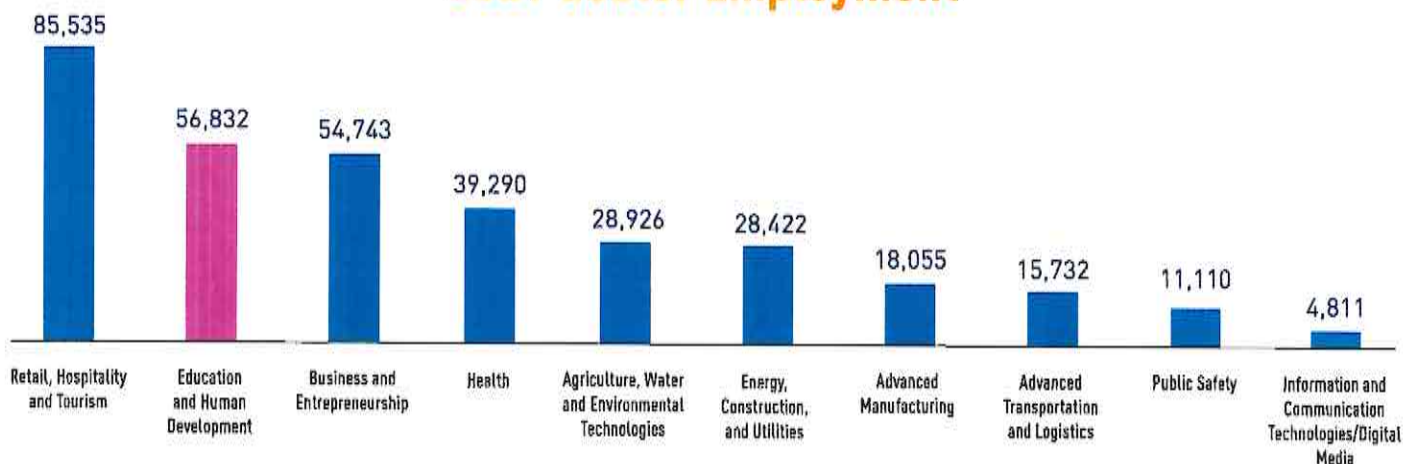
Middle-skill jobs, those which require education or training beyond a high school diploma but less than a bachelor's degree, are a critical component of the overall workforce and support the economic vitality of the region and the state.

This sector profile summarizes key data about current and projected workforce demand, hourly wages, job postings, and community college programs to support the goals of California's Strong Workforce Program (SWP).

SWP is an initiative designed to expand career education (CE) programs offered by the California Community Colleges to supply a skilled workforce to California's employers. The North Far North Regional Consortium (NFNRC) is charged with coordinating the planning and implementation of CE programs among community colleges within the 22-county North/Far North region, which includes the North (Greater Sacramento) and Far North subregions.

The Far North subregion encompasses 15 counties (Butte, Colusa, Del Norte, Glenn, Humboldt, Lake, Lassen, Mendocino, Modoc, Plumas, Shasta, Sierra, Siskiyou, Tehama, and Trinity) and seven community colleges (Butte, College of the Redwoods, College of the Siskiyous, Feather River, Lassen, Mendocino, and Shasta).

Far North 2021 Sector Employment



SECTOR Highlights



56,832
Jobs in 2021

59,790
Projected Jobs in 2026

5%
Projected Job Growth,
2021-2026

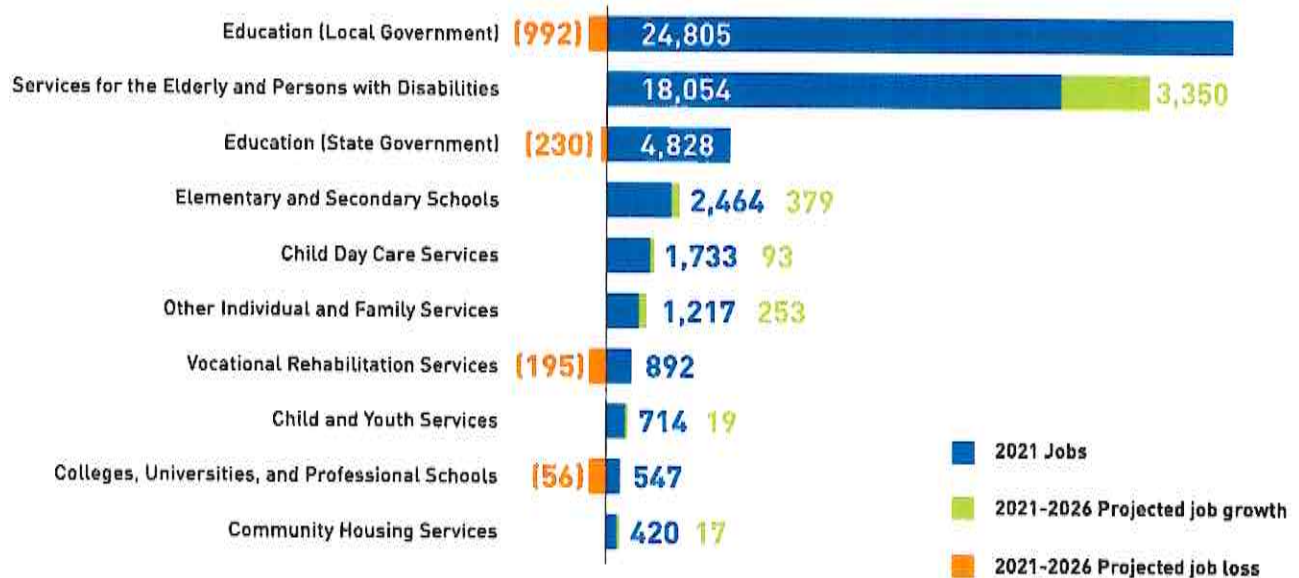
2,958
New Jobs by 2026

15,986
Businesses

16.6%
% of Far North
Employment, 2021

Note: The Education and Human Development sector includes 26 distinct 6-digit NAICS codes. Contact the NFN COE for a complete listing of NAICS codes by sector.

Employment by Industry Subsector

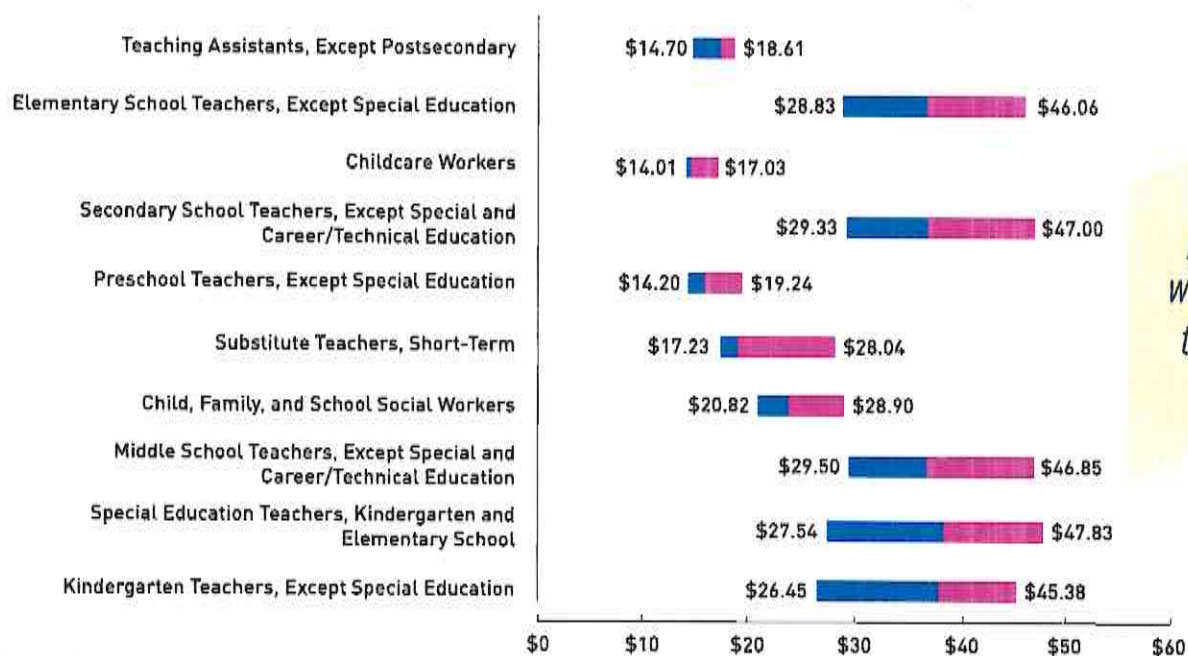


Priority Middle-Skill Occupations

Occupation	2021 Jobs	2021-2026 Projected % Change	2021-2026 Average Annual Openings	Typical Entry-Level Education
Teaching Assistants, Except Postsecondary	3,747	(1%)	357	Some college, no degree
Childcare Workers	1,946	(4%)	281	High school diploma or equivalent
Preschool Teachers, Except Special Education	1,359	6%	159	Associate degree
Elementary School Teachers, Except Special Education	4,469	(2%)	335	Bachelor's degree
Secondary School Teachers, Except Special and Career/Technical Education	2,393	1%	179	Bachelor's degree
Substitute Teachers, Short-Term	1,352	0%	159	Bachelor's degree
Child, Family, and School Social Workers	972	7%	105	Bachelor's degree
Middle School Teachers, Except Special and Career/Technical Education	1,186	1%	93	Bachelor's degree
Special Education Teachers, Kindergarten and Elementary School	407	0%	31	Bachelor's degree
Kindergarten Teachers, Except Special Education	275	0%	29	Bachelor's degree

Note: Jobs for the above occupations may not solely exist in this sector and may be found in other sectors that require related services. Projected change includes new job growth and replacements.

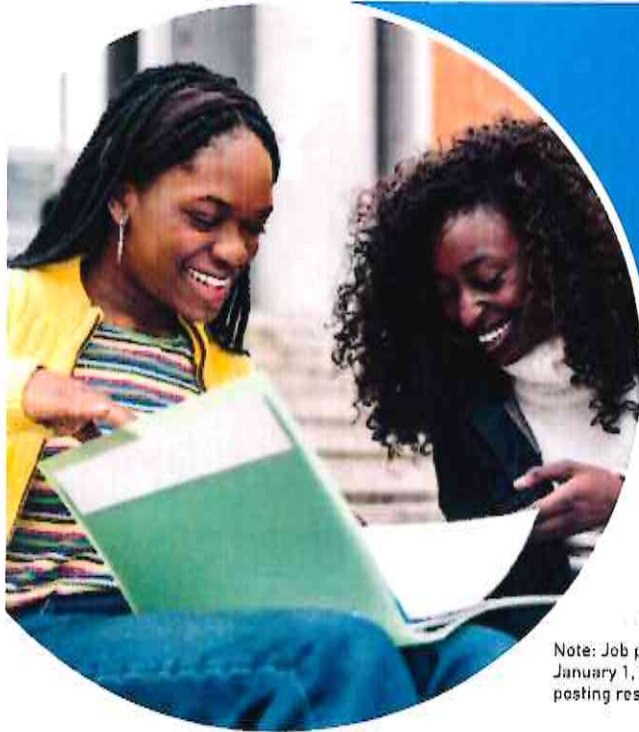
Middle-Skill Hourly Wage Ranges



These occupations pay a starting wage at or above the subregion's living wage.

Note: The hourly wage ranges include the 25th percentile (entry-level), median, and 75th percentile (experienced) hourly earnings for workers employed in these occupations across the Far North subregion where the minimum wage in 2021 was \$15.

Priority Middle-Skill Job Postings



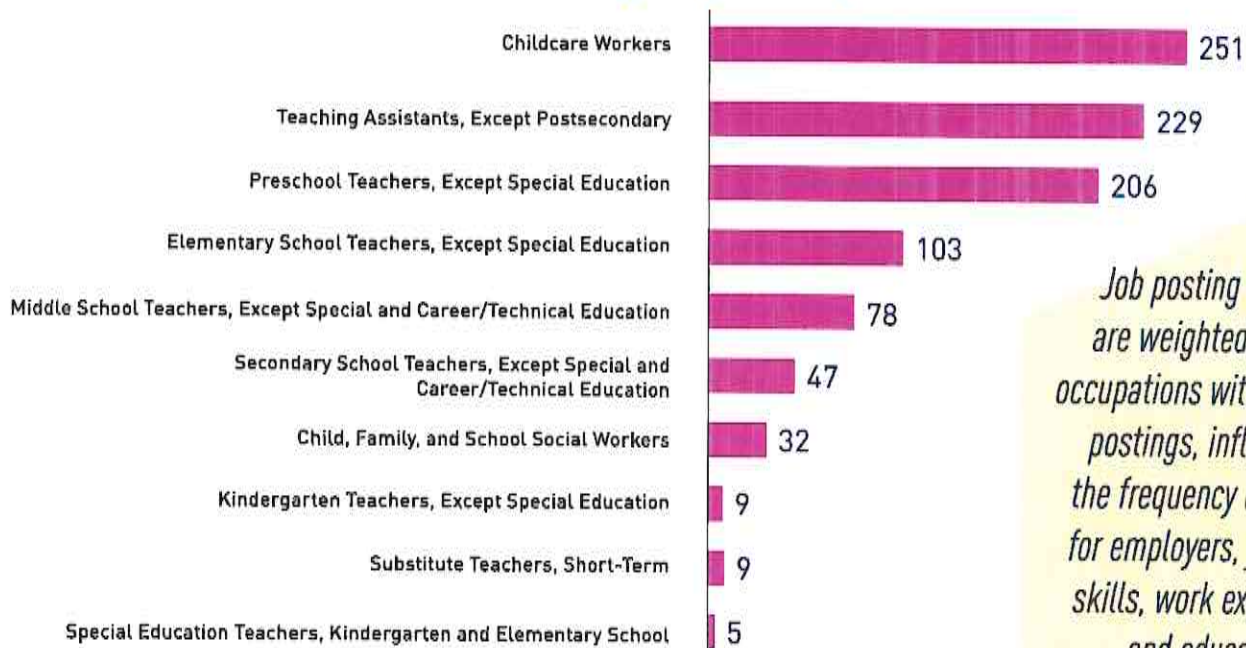
Posting intensity is the ratio of duplicated to unique job postings. A higher-than-average posting intensity can mean employers are putting more effort into hiring.

969
Online Job Postings

2:1
Posting Intensity
(Regional Average 3:1)

Note: Job postings count the number of online job postings advertised in the 15-county Far North subregion between January 1, 2022 - March 31, 2023. Postings are limited to in-state employers and exclude staffing companies. Job posting results represent the top 10 priority middle-skill occupations.

Job Postings by Occupation



Job posting results are weighted toward occupations with the most postings, influencing the frequency of results for employers, job titles, skills, work experience, and education.



Top Employers & Job Titles

Employers with the Most Postings

E-Center
 Shasta College
 Konocti Unified School District
 Mendocino College
 Gateway Unified School District

Job Titles with the Most Postings

Nannies/Babysitters
 Preschool Teachers
 Associate Teachers
 Classroom Aides
 Head Teachers

Most In-Demand Skills

Specialized Skills

- Child Development
- Early Childhood Education
- Preschool Education
- Individualized Education Programs (IEP)
- Head Start (Education Program)

Soft Skills

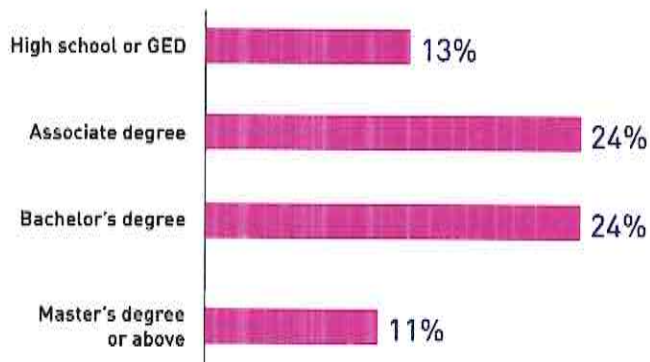
- Teaching
- Communications
- Management
- Planning
- Mathematics

Software and Technical Skills

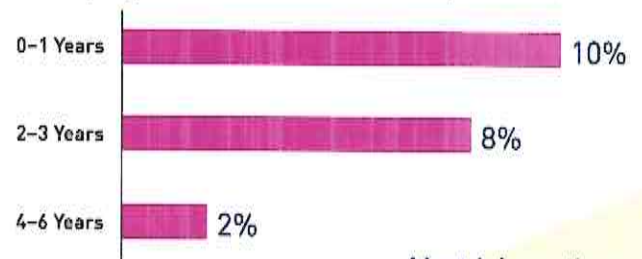
- Microsoft Office (Access, Excel, Outlook, PowerPoint, Word)
- Zoom
- Student Information Systems
- Database Software/Systems
- Learning Management Systems

Education & Experience in Postings

Employer-Preferred Education

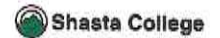


Employer-Preferred Work Experience



Most job postings do not include a preferred education or experience level.

Community College Programs



Butte College	College of the Redwoods	College of the Siskiyous	Feather River College	Lassen College	Mendocino College	Shasta College
Early Childhood Education	Early Childhood Education	Early Childhood Education	Early Childhood Education	Early Childhood Education	Early Childhood Education	Early Childhood Education
Child Development			Teacher	Child Development	Child Development	Human Services
					Family Relations	





Prepared by

Ebony J. Benzing, Research Manager
North/Far North Center of Excellence for Labor
Market Research

Supported by:

Juan Madrigal, Labor Market Research Consultant

Editing by:

Lauren McSherry, L.M. McSherry Consulting

Graphic Design by:

Jim Schneider, Right Angle Design

Sources

- Lightcast 2022.4 - QCEW Employees, Non-QCEW Employees, and Self-Employed
- Centers of Excellence for Labor Market Research Occupation Crosswalk
- California Community Colleges Chancellor's Office LaunchBoard
- California Community Colleges Chancellor's Office DataMart
- Integrated Postsecondary Education Data System (IPEDS)
- California Community Colleges Curriculum Inventory (COCI)

Disclaimers:

All representations included in this report have been produced from primary research and/or secondary review of publicly and/or privately available data and/or research reports. Efforts have been made to qualify and validate the accuracy of the data and the reported findings; however, neither the Centers of Excellence, COE host District, nor California Community Colleges Chancellor's Office are responsible for applications or decisions made by recipient community colleges or their representatives based upon components or recommendations contained in this study.

© 2023 California Community Colleges Chancellor's Office, Centers of Excellence for Labor Market Research, Economic and Workforce Development Program



AS Degree in Agriculture Science

About the Program

Program Goal: Career
GE Pattern(s): Butte Local, Cal-GETC
Program Code: 01298.02AS

The Agriculture Science program offers an AS degree for those students interested in a more general course of study. Students with a background in production agriculture, 4-H or FFA will find success in this program as they pursue a career with an emphasis in agriculture sciences, agriculture education, and agribusiness occupations. California ranks first in the nation in annual gross agricultural returns. The livestock industry and over 250 specialty crops provide a variety of career choices. Trained personnel are employed on ranches and farms, as well as the vast agriculture service industry. Career opportunities also exist with governmental agencies. Every year there are several openings in Agriculture Education in California as well as other states.

The Agriculture Science program connects plant science and soil science to crop production practices such as fertility, irrigation, and pest management in agriculture systems. Courses cover areas of scientific principles, economic marketplaces, societal food systems, and crop production to equip you with the skills to grow agriculture commodities. Challenges facing agriculture are opportunities for you to dig in, get dirty, and solve problems. Come and explore how agriculture science can support communities in California and beyond. California ranks first in the nation in annual gross agricultural returns. The livestock industry and over 400 specialty crops provide a variety of career choices. Employment is found on ranches and farms, as well as the vast agriculture service industry. Career opportunities also exist with governmental agencies and non-profits as well as agriculture education.

Program Learning Outcome(s):

Upon successful completion of the program, the student will be able to:

1. Identify and apply the principles and techniques of modern crop and livestock management.
 2. Describe fundamental care practices for animals, including selection, handling and management.
 3. Distinguish common types of agricultural pests including weeds, diseases, and insects.
 4. Calibrate plant protection equipment including hand-held, ATV, trailer, and orchard sprayers.
 5. Select appropriate fertilizers, basic application methods, and recognize their effect on plants and the environment.
 6. Describe how breeding, genetics, and biotechnology are used to increase agricultural production.
 7. Demonstrate scientific evaluation skills including interpreting graphs and data from scientific papers.
-
- 1 Explain the relevance of the central components of the food system in the context of the three pillars of sustainability.
 - 2 Apply fundamental principles of plant and soil science to agriculture production and integrated pest management systems.
 - 3 Describe the role of livestock in agricultural production and the food system.
 - 4 Apply the scientific method to solve agricultural problems through observation, experimentation, and data analysis.
 - 5 Critically evaluate agricultural production systems using quantitative tools, interpret numerical data to inform management practices, and communicate evidence-based recommendations.
 - 6 Practice professional and safe work habits.

Required courses:

		44.00-45.00	42.00 -41.00
AB 20	Careers in Agriculture, Environmental Science and Natural Resources		1.00
AB 22	Agricultural Economics		3.00
AB 25	Computer Applications in Agriculture		3.00
AB 26	Introduction to Agriculture Business		2.00
AB 49	Agricultural Accounting		3.00
AB 54	Supervision and Management in Agriculture		3.00
AET 30	Tractors and Crawlers		2.00
AET 34	Farm Machinery		3.00
AGS 10	World Food and Hunger Issues		3.00
AGS 20	Plant Science		3.00
AGS 50	General Soils		4.00
AGS 40/45	Introduction to Animal Science/Feeds and Feeding		4.00/3.00
AGS 45	Feeds and Feeding		3.00
AGS 99	Work Experience-AGS		2.00
COMM C1000	Introduction to Public Speaking		3.00
EH 38	Greenhouse Production		3.00
EH 60	Principles of Integrated Pest Management		3.00
EH 66	Orchard Production and Management		3.00
STAT C1000/ STAT C1000E	Introduction to Statistics/ Introduction to Statistics		4.00
<i>Select one:</i>			
AGS 10	World Food and Hunger Issues		3.00
NR 26	Environmental Weed		3.00
<i>Select two one:</i>			
AET 26	Basic Surveying		3.00-6.00-7.00
			2.00

AGS 30	Ecology of Insect and Disease Management	3.00
AGS 51	Fertilizers and Plant Nutrition	3.00
AGS 40	Introduction to Animal Science	4.00
AGS 45	Feeds and Feeding	3.00
AGS 75	Introduction to Agricultural Education	3.00

Suggested Program Map (Butte GE)

Required courses:		Units: 60.00-65.00
<i>Term 1 (Fall)</i>		
AB 20	Careers in Agriculture, Environmental Science and Natural Resources	16.00-18.00
	<i>Meets Graduation Requirement.</i>	1.00
AB 25	Computer Applications in Agriculture	3.00
AET 30	Tractors and Crawlers	3.00
AGS 10	World Food and Hunger Issues	3.00
Meets Area 4		3.00
AGS 20	Plant Science	3.00
Meets Area 5		3.00
EH 60	Principles of Integrated Pest Management	3.00
Area 1A Choice		3.00
Select one: Meets Area 1		3.00
AGS 10	World Food and Hunger Issues	3.00
NR 26	Environmental World	3.00
Area 2 Choice (See GE Guide)		3.00-5.00
Area 6 Choice (See GE Guide)		3.00

Term 2 (Spring)		13.00-14.00
AB 26	Introduction to Agriculture Business	3.00
AB 54	Supervision and Management in Agriculture	3.00
AET 34	Farm Machinery	3.00
AGS 50	General Soils	4.00
Meets Area 5A/5C.		
STAT C1000	Introduction to Statistics	4.00
OR STAT C1000E		
EH 38	Greenhouse Production	3.00
Area 1A Choice (See GE Guide)		3.00-4.00
Term 3 (Summer intersession)		2.00
AGS 99	Work Experience-AGS	2.00
Term 4 (Fall)		13.00-13.00
AB 22	Agricultural Economics	3.00
Meets Area 4.		
AB 50	Agricultural Accounting	3.00
AGS 40	Introduction to Animal Science	4.00
AGS 20	Plant Science	3.00
Meets Area 5B/5C.		
COMM C1000	Introduction to Public Speaking	3.00
Meets Area 1C.		
Area 6 Choice (See GE Guide)		3.00
Term 5 (Spring)		12.00-17.00-19.00
EH66	Orchard Production and Management	3.00
AET 34	Farm Machinery	3.00
Area 3 Choice (See GE Guide)		3.00-4.00
Electives (Select two one):		3.00-6.00-7.00
AET 26	Basic Surveying	2.00
AGS 30	Ecology of Insect and Disease Management	3.00
AGS 40	Introduction to Animal Science	4.00
AGS 45	Feeds and Feeding	3.00
AGS 51	Fertilizers and Plant Nutrition	3.00
AGS 75	Introduction to Agricultural Education	3.00
Graduation Requirement Choice (See GE Guide)		1.00

Electives (any course numbered 1-99 or C1000-C1999) 3.00-6.00-4.00

Any course numbered 1-99 or C1000-C1999

Only necessary if the 60 units needed to graduate have not been completed. ~~Consider taking a Cal-GETC General Education course. Visit www.assist.org to see options.~~ AGS or EH courses are recommended. If you are considering transfer to UC or CSU, take a Cal-GETC Area 3 course that has not been satisfied by the Butte GE Area 3. Contact a Counselor or Agriculture Science Instructor for options.

Total: 60.00-65.00

AS Degree in Automotive Technology

About the Program

Program Goal: Career

GE Pattern(s): Butte Local

Program Code: 01323.01AS

The Butte College Automotive Technology program is an ASE Education Foundation certified school and is designed to prepare students for employment as automotive technicians in dealerships, government, fleet, and independent service shops. All automotive classes are offered at the Skyway Center in Chico. The Skyway Center is a modern facility and completely outfitted with ASE required training aids and tooling needed to prepare the student for a successful automotive technician career. The goal of the department is to train highly-skilled entry-level technicians with work habits that will make them successful in their career.

Automotive career opportunities are offered nationwide. Help with job placement is available for successful students. For career information please refer to our website: www.butte.edu/departments/careertech/automotive or contact the Automotive Department Chair.

Admission to the Program:

Due to high interest, this program may have limited enrollment through a waitlist. If you are interested in this program and would like to **apply register or get on the program waitlist**, please refer to our **department website**: www.butte.edu/departments/careertech/automotive/

~~From our department home page follow the link "Get Started" and sign up for one of our Tours. Fill out the "Program Tour Sign-Up" form. Once the form is complete, click the "SEND FORM" button. You will be invited to our next program tour through an email. During the program tour, participants will receive information on how to join the program and the next steps involved.~~

~~If you have any further questions, please contact the Automotive Department Chair (see www.butte.edu/departments/careertech/automotive/) and click on "Instructors"~~

Prerequisite/Corequisite: Students **need will be required** to have completed **or be concurrently enrolled in** AUT 101 (or equivalent), and AUT 3 (or equivalent) **before acceptance to this program.**

Program Learning Outcome(s):

Upon successful completion of the program, the student will be able to:

1. Explain the principles of operation and maintenance required to repair all systems of the modern automobile.
2. Safely and correctly maintain, diagnose, and repair specific areas of the vehicle.
3. Effectively communicate vehicle diagnoses, repair procedures, and maintenance recommendations, accurately documenting all work performed in accordance with industry standards.
4. Apply the state and federal regulations of the Occupational Safety and Health Association (OSHA) and the Environmental Protection Agency (EPA).
5. Demonstrate proficiency in the use of industry-standard tools and precision measuring instruments.
6. Apply safe work habits and practices.

Required courses:

AUT 3	Specialized Automotive Electronics	48.00	42.00
AUT 6	Automotive Electrical Systems Lecture	6.00	
AUT 7	Automotive Electrical Systems Lab	2.00	
AUT 8	Auto Engines Lecture	2.00	
AUT 9	Auto Engines Lab	3.00	
AUT 20	Automotive Brakes/Suspension and Steering Systems Lecture	3.00	
AUT 21	Automotive Brakes/Suspension and Steering Systems Lab	3.00	
AUT 22	Automotive Heating and Air Conditioning Lecture	2.00	
AUT 23	Automotive Heating and Air Conditioning Lab	2.00	
AUT 30	Gas/Diesel Engine Performance Lecture	5.00	
AUT 31	Gas/Diesel Engine Performance Lab	5.00	
AUT 52	Automatic Transmissions/Transaxles Lecture	3.00	
AUT 53	Automatic Transmissions/Transaxles Lab	3.00	
AUT 56	Manual Transmissions/Drivetrains Lecture	2.00	
AUT 57	Manual Transmissions/Drivetrains Lab	2.00	
AUT 60	Hybrid and Alternative Fuel Technologies	2.00	

Total: ~~48.00~~ 42.00

Suggested Program Map (Butte GE)

Required courses:

Units: ~~69.00-75.00~~ 63.00-69.00

~~Term 1~~ _____ 15.00-18.00

AUT 3 Specialized Automotive Electronics		6.00
Area 1A Choice (See GE Guide)		3.00-4.00
Area 2 Choice (See GE Guide)		3.00-5.00
Area 6 Choice (See GE Guide)		3.00
Term 2 1		16.00-17.00 13.00-14.00
AUT 6	Automotive Electrical Systems Lecture	2.00
AUT 7	Automotive Electrical Systems Lab	2.00
AUT 20	Automotive Brakes/Suspension and Steering Systems Lecture	3.00
AUT 21	Automotive Brakes/Suspension and Steering Systems Lab	3.00
Area 1B/C Choice (See GE Guide)		3.00
Area 3 Choice (See GE Guide)		3.00-4.00
Term 3 2		12.00
AUT 8	Auto Engines Lecture	3.00
AUT 9	Automotive Engines Lab	3.00
AUT 22	Automotive Heating and Air Conditioning Lecture	2.00
AUT 23	Automotive Heating and Air Conditioning Lab	2.00
AUT 60	Hybrid and Alternative Fuel Technologies	2.00
Term 4 3		13.00
AUT 52	Automatic Transmissions/Transaxles Lecture	3.00
AUT 53	Automatic Transmissions/Transaxles Lab	3.00
AUT 56	Manual Transmissions/Drivetrains Lecture	2.00
AUT 57	Manual Transmissions/Drivetrains Lab	2.00
Area 4 Choice (See GE Guide)		3.00
Term 5 4		13.00-15.00
AUT 30	Gas/Diesel Engine Performance Lecture	5.00
AUT 31	Gas/Diesel Engine Performance Lab	5.00
Area 5 Choice (See GE Guide)		3.00-5.00
Term 5		12.00-15.00
Area 1B/C Choice (See GE Guide)		3.00
Area 2 Choice (See GE Guide)		3.00-5.00
Area 1A Choice (See GE Guide)		3.00-4.00
Area 6 Choice (See GE Guide)		3.00
Total:		69.00-75.00 63.00-69.00

AS Degree in Diesel Technology

About the Program

Program Goal: Career

GE Pattern(s): Butte Local

Program Code: 38059.01AS

The Associate of Science Degree in Diesel Technology has been developed to provide the light and medium duty diesel industry with well-prepared, entry-level technicians. Our rural location and its heavy agricultural influence necessitate the need for technicians who are trained in the area of diesel-powered trucks and equipment. This program will prepare the student to diagnose the mechanical, electrical, and hydraulic systems found on over the road diesel powered vehicles and equipment.

Upon successful completion of the Diesel Technology Program, students will enter the industry with their Section 609 Compliance Certification, making it possible to service refrigeration units. Along with the 609 Certification, students will also receive their Department of Transportation (D.O.T.) brake inspection certification.

A career as a Diesel Technician offers a higher starting and hourly mean wage than that of a light car and truck technicians (Bureau of Labor Statistics May 2016). With that, the areas that offer employment opportunities range from heavy equipment dealers/shops, fleet maintenance facilities, public and private, along with new car/truck dealers. This diversity offers a lot of flexibility regarding location. Employment can be found in urban areas as well as rural farming communities.

Help with job placement is available for successful students. For Career information please refer to our website: www.butte.edu/departments/careertech/automotive or contact the Automotive Department Chair.

Admission to the Program:

Due to high interest, this program may have limited enrollment through a waitlist. If you are interested in this program and would like to ~~apply register or get on the program waitlist~~, please refer to our ~~department~~ website: www.butte.edu/departments/careertech/automotive/

~~From our department home page follow the link "Get-Started" and sign up for one of our Tours. Fill out the "Program Tour Sign-Up" form. Once the form is complete, click the "SEND FORM" button. You will be invited to our next program tour through an email. During the program tour, participants will receive information on how to join the program and the next steps involved.~~

~~If you have any further questions, please contact the Automotive Department Chair (see www.butte.edu/departments/careertech/automotive/) and click on "Instructors"~~

~~Prerequisite/Corequisite: Beginning in fall 2024 students will be required to have completed or be concurrently enrolled in AUT-101 or equivalent. Students need will be required to have completed or be concurrently enrolled in AUT 101 (or equivalent), and AUT 3 (or equivalent) before acceptance applying to this program.~~

Program Learning Outcome(s):

Upon successful completion of the program, the student will be able to:

1. Explain the operation of diesel engine components and systems.
- ~~2. Identify various diesel engine applications.~~
3. Apply the state and federal regulations of the Occupational Safety and Health Association (OSHA) and the Environmental Protection Agency (EPA).
4. Apply general principles of preventive maintenance to diesel repair.
5. Demonstrate proficiency in the use of industry-standard tools and precision measuring instruments.
6. Apply safe work habits and practices.
7. Troubleshoot and perform repairs on mechanical, electrical, hydraulic and electronic systems.
8. Use computers to diagnose equipment and research information.
9. Perform preventative maintenance such as engine tune-ups, front-end alignments, and brake adjustments.
10. Operate shop machinery and equipment, including hoists, hydraulic jacks, steam cleaners, floor jacks, disassembly stands, grinders, drill presses, hydraulic presses, and bead blasters.
11. Select and use precision tools such as torque wrenches, micrometers, dial indicators, tap and dies, and bore gauges.
12. Effectively communicate vehicle diagnoses, repair procedures, and maintenance recommendations, accurately documenting all work performed in accordance with industry standards.
- ~~13. Maintain professional attitude in challenging working conditions.~~

Required courses:

AUT 3	Specialized Automotive Electronics	56.00	48.00
AUT 6	Automotive Electrical Systems Lecture		2.00
AUT 7	Automotive Electrical Systems Lab		2.00
AUT 8	Auto Engines Lecture		3.00
AUT 9	Automotive Engines Lab		3.00
AUT 20	Automotive Brakes/Suspension and Steering Systems Lecture		3.00
AUT 21	Automotive Brakes/Suspension and Steering Systems Lab		3.00
AUT 22	Automotive Heating and Air Conditioning Lecture		2.00
AUT 23	Automotive Heating and Air Conditioning Lab		2.00
AUT 30	Gas/Diesel Engine Performance Lecture		5.00
AUT 31	Gas/Diesel Engine Performance Lab		5.00

AUT 52	Automatic Transmissions/Transaxles Lecture	3.00
AUT 53	Automatic Transmissions/Transaxles Lab	3.00
AUT 56	Manual Transmissions/Drivetrains Lecture	2.00
AUT 57	Manual Transmissions/Drivetrains Lab	2.00
AUT 73	Diesel Industry Technologies Lecture	3.00
AUT 74	Diesel Industry Technologies Lab	3.00
WLD 20	Beginning-Welding	4.00
WLD 18	Introduction to Industrial Welding	2.00

Total: ~~56.00~~ 48.00

Suggested Program Map (Butte GE)

Required courses:

Units: ~~77.00-83.00~~ 69.00-75.00

Term 1		15.00-18.00
AUT 3	Specialized Automotive Electronics	6.00
Area 1A Choice (See GE Guide)		3.00-4.00
Area 7 Choice (See GE Guide)		2.00-5.00
Area 6 Choice (See GE Guide)		3.00
 Term 2-1		 16.00-17.00 13.00-14.00
AUT 6	Automotive Electrical Systems Lecture	2.00
AUT 7	Automotive Electrical Systems Lab	2.00
AUT 20	Automotive Brakes/Suspension and Steering Systems Lecture	3.00
AUT 21	Automotive Brakes/Suspension and Steering Systems Lab	3.00
Area 1B/C Choice (See GE Guide)		3.00
Area 3 Choice (See GE Guide)		3.00-4.00
 Term 3-2		 16.00
AUT 8	Auto Engines Lecture	3.00
AUT 9	Automotive Engines Lab	3.00
AUT 22	Automotive Heating and Air Conditioning Lecture	2.00
AUT 23	Automotive Heating and Air Conditioning Lab	2.00
AUT 73	Diesel Industry Technologies Lecture	3.00
AUT 74	Diesel Industry Technologies Lab	3.00
 Term 4-3		 17.00 15.00
AUT 52	Automatic Transmissions/Transaxles Lecture	3.00
AUT 53	Automatic Transmissions/Transaxles Lab	3.00
AUT 56	Manual Transmissions/Drivetrains Lecture	2.00
AUT 57	Manual Transmissions/Drivetrains Lab	2.00
WLD 20	Beginning-Welding	4.00
WLD18	Introduction to Industrial Welding	2.00
Area 4 Choice (See GE Guide)		3.00
 Term 5-4		 13.00-15.00
AUT 30	Gas/Diesel Engine Performance Lecture	5.00
AUT 31	Gas/Diesel Engine Performance Lab	5.00
Area 5 Choice (See GE Guide)		3.00-5.00
 Term 5		 12.00-15.00
Area 1B/C Choice (See GE Guide)		3.00
Area 2 Choice (See GE Guide)		3.00-5.00
Area 1A Choice (See GE Guide)		3.00-4.00
Area 6 Choice (See GE Guide)		3.00

Total: ~~77.00-83.00~~ 69.00-75.00

AS Degree in Automotive Technology - Honda, Professional Automotive Career Training (PACT)

About the Program

Program Goal: Career

GE Pattern(s): Butte Local

Program Code: 38066.01AS

The Associate of Science Degree in Automotive Technology - Honda, Professional Automotive Career Training (PACT) prepares students to enter the workforce as entry level Honda and Acura technicians in dealerships nationwide.

The Butte College Automotive Technology program is an ASE Education Foundation certified school and has partnered with American Honda to prepare students for employment as automotive technicians in Honda and Acura dealerships. All automotive classes are offered at the Skyway Center in Chico. The Skyway Center is a modern facility and completely outfitted with all Honda, Acura, and ASE required training aids and tooling needed to prepare the student for a successful automotive technician career. The goal of the department is to train highly-skilled entry-level technicians with work habits that will make them successful in their career.

After program completion, the student will also receive a nationally recognized certification from American Honda that indicates the completion of standardized curriculum delivered at all PACT schools across the nation.

Automotive career opportunities are offered nationwide along with paid internships for Honda PACT students. Help with job placement is available for successful students. For Career information please refer to our website: www.butte.edu/departments/careertech/automotive or contact the Automotive Department Chair

Admission to the Program:

Due to high interest, this program may have limited enrollment through a waitlist. If you are interested in this program and would like to ~~apply register or get on the program waitlist~~, please refer to our ~~department~~ website: www.butte.edu/departments/careertech/automotive/

~~From our department home page follow the link "Get Started" and sign up for one of our Tours. Fill out the "Program Tour Sign-Up" form. Once the form is complete, click the "SEND FORM" button. You will be invited to our next program tour through an email. During the program tour, participants will receive information on how to join the program and the next steps involved.~~

~~If you have any further questions, please contact the Automotive Department Chair (see www.butte.edu/departments/careertech/automotive) and click on "Instructors"~~

~~Prerequisite/Corequisite:~~ Students ~~need will be required~~ to have completed ~~or be concurrently enrolled in~~ AUT 101 (or equivalent), and AUT 3 (or equivalent) ~~before acceptance to this program.~~

Program Learning Outcome(s):

Upon successful completion of the program, the student will be able to:

1. Explain the principles of operation and maintenance required to repair all systems of ~~the modern automobile with emphasis on~~ Honda and Acura automobiles.
2. Safely and correctly maintain, diagnose and repair specific areas of ~~the vehicle with emphasis on~~ Honda and Acura automobiles.
3. ~~Effectively communicate vehicle diagnoses, repair procedures, and maintenance recommendations, accurately documenting all work performed in accordance with industry standards.~~
4. Apply the state and federal regulations of the Occupational Safety and Health Association (OSHA) and the Environmental Protection Agency (EPA).
5. Demonstrate proficiency in the use of industry-standard tools and precision measuring instruments.
6. Apply safe work habits and practices.

Required courses:

AUT 3	Specialized Automotive Electronics	53.50 49.50
AUT 6	Automotive Electrical Systems Lecture	6.00
AUT 7	Automotive Electrical Systems Lab	2.00
AUT 8	Auto Engines Lecture	2.00
AUT 9	Automotive Engines Lab	3.00
AUT 20	Automotive Brakes/Suspension and Steering Systems Lecture	3.00
AUT 21	Automotive Brakes/Suspension and Steering Systems Lab	3.00
AUT 22	Automotive Heating and Air Conditioning Lecture	2.00
AUT 23	Automotive Heating and Air Conditioning Lab	2.00
AUT 30	Gas/Diesel Engine Performance Lecture	5.00
AUT 31	Gas/Diesel Engine Performance Lab	5.00
AUT 52	Automatic Transmissions/Transaxles Lecture	3.00
AUT 53	Automatic Transmissions/Transaxles Lab	3.00
AUT 56	Manual Transmissions/Drivetrains Lecture	2.00
AUT 57	Manual Transmissions/Drivetrains Lab	2.00
AUT 60	Hybrid and Alternative Fuel Technologies	2.00
AUT 81	Honda PACT Employment Preparation I	2.00
AUT 82	Honda PACT Employment Preparation II	3.00
AUT 83	Honda PACT Skills Certification	3.00

Total: ~~53.50~~49.50

AUT 3	Specialized Automotive Electronics	6.00
Area 1A Choice (See GE Guide)		3.00-4.00
Area 2 Choice (See GE Guide)		3.00-5.00
Area 6 Choice (See GE Guide)		3.00
Term 2 1		16.00-17.00 13.00-14.00
AUT 6	Automotive Electrical Systems Lecture	2.00
AUT 7	Automotive Electrical Systems Lab	2.00
AUT 20	Automotive Brakes/Suspension and Steering Systems Lecture	3.00
AUT 21	Automotive Brakes/Suspension and Steering Systems Lab	3.00
Area 1B/C Choice (See GE Guide)		3.00
Area 3 Choice (See GE Guide)		3.00-4.00
Term 3 2		14.00 15.00
AUT 8	Auto Engines Lecture	3.00
AUT 9	Automotive Engines Lab	3.00
AUT 22	Automotive Heating and Air Conditioning Lecture	2.00
AUT 23	Automotive Heating and Air Conditioning Lab	2.00
AUT 60	Hybrid and Alternative Fuel Technologies	2.00
AUT 81	Honda PACT Employment Preparation I	2.00 3.00
Term 4 3		15.00 16.00
AUT 52	Automatic Transmissions/Transaxles Lecture	3.00
AUT 53	Automatic Transmissions/Transaxles Lab	3.00
AUT 56	Manual Transmissions/Drivetrains Lecture	2.00
AUT 57	Manual Transmissions/Drivetrains Lab	2.00
AUT 82	Honda PACT Employment Preparation II	2.00 3.00
Area 4 Choice (See GE Guide)		3.00
Term 5 4		14.50-16.50
AUT 30	Gas/Diesel Engine Performance Lecture	5.00
AUT 31	Gas/Diesel Engine Performance Lab	5.00
AUT 83	Honda PACT Skills Certification	1.50
Area 5 Choice (See GE Guide)		3.00-5.00
Term 5		12.00-15.00
Area 1B/C Choice (See GE Guide)		3.00
Area 2 Choice (See GE Guide)		3.00-5.00
Area 1A Choice (See GE Guide)		3.00-4.00
Area 6 Choice (See GE Guide)		3.00

Total: ~~74.50-80.50~~ 70.50-76.50

AS Degree in Recording Arts

About the Program

Program Goal: Career
 GE Pattern(s): Butte Local
 Program Code: 33222.00AS

The Recording Arts program provides students with fundamental to advanced knowledge and understanding of audio recording techniques and applications. Students learn audio recording methods and how to operate the equipment used in a professional recording studio, as well as computer-based composition and mixing. Courses include theory, performance, digital music production, and hands-on experience including recording, overdubbing, mixing and mastering.

The program prepares students for a host of careers within and beyond the recording studio, including but not limited to Assistant Engineer, Assistant Mix Engineer, Studio Booking Technician, Audio/Visual Technician, Studio Owner, Information Technology Specialist and Customer Service Representative, Video Game Audio Engineer, and TV and Film Audio Engineer.

Program Learning Outcome(s):

Upon successful completion of the program, the student will be able to:

1. Apply modern music composition techniques in digital audio workstations.
2. Implement modern mixing techniques in digital audio.
3. Identify signal flow in the recording chain.
4. Identify the different types of microphones and the proper use of each type in recording situations.
5. Demonstrate competency in computer recording processes in a studio recording.
6. Demonstrate applied skills in gain staging in analog and digital recordings.
7. Demonstrate proper etiquette and interpersonal skills while working on group projects.

Required courses:

MUS 3	Music Fundamentals	24.00	28.00-30.00
MUS 40	Piano I		3.00
MUS 41	Piano II		1.00
MUS 51	Digital Music Production I		1.00
MUS 52	Introduction to Recording Techniques		3.00
MUS 53	Digital Music Production II		3.00
MUS 54	Studio Recording I		3.00
MUS 55	Studio Recording II		3.00
MUS 80	Theory & Musicianship I		4.00
MUS 90	Introduction to the Music Industry		2.00

Select one:

MUS-20	Guitar-I	2.00-5.00
MUS 30	Voice-I	1.00
MUS-40	Piano-I	1.00

Select one:

MUS-24	Guitar-II	2.00-4.00
MUS-34	Voice-II	1.00
MUS 4	Songwriting	1.00
MUS 82	Music Theory & Musicianship II	2.00
RTVF 30	Beginning Audio Production	4.00
		3.00

Total: 24.00 28.00-30.00

Suggested Program Map (Butte GE)

Required courses:

Units: 60.00-66.00

Term 1

MUS 3	Music Fundamentals	16.00-17.00
MUS 40	Piano I	3.00
MUS 51	Digital Music Production I	1.00
MUS 52	Introduction to Recording Techniques	3.00
Select one:		3.00
MUS-20	Guitar-I	1.00
MUS-30	Voice-I	1.00
MUS 40	Piano-I	1.00

Area 1A Choice (See GE Guide)

3.00-4.00

Area 1B/C Choice (See GE Guide)

3.00

<i>Term 2</i>		14.00-16.00
MUS 41	Piano II	1.00
MUS 53	Digital Music Production II	3.00
MUS 54	Studio Recording I	3.00
MUS 80	Theory & Musicianship I	4.00
<i>Select one:</i>		1.00
MUS 21	Guitar II	1.00
MUS 31	Voice II	1.00
MUS 41	Piano II	1.00
Area 2 Choice (See GE Guide)		3.00-5.00
<i>Term 3</i>		15.00-18.00
MUS 55	Studio Recording II	3.00
MUS 90	Introduction to the Music Industry	2.00
Area 3 Choice (See GE Guide)		3.00-4.00
Area 4 Choice (See GE Guide)		3.00
Area 5 Choice (See GE Guide)		3.00-5.00
Area 6 Choice (See GE Guide)		3.00
<i>Term 4</i>		15.00
Graduation Requirement Choice (See GE Guide)		2.00
Elective (any course numbered 1-99 or C1000-C1999)		13.00
Only necessary if the 60 units needed to graduate have not been completed. Consider taking a Cal-GETC General Education course. Visit www.assist.org to see options.		

Total: 60.00-66.00

Certificate of Achievement in Automotive Technology

About the Program

Program Goal: Career

GE Pattern(s): None

Program Code: 01323.01CA

See AS Degree in Automotive Technology.

Admission to the Program:

See AS Degree in Automotive Technology

Program Learning Outcome(s):

Upon successful completion of the program, the student will be able to:

1. Explain the principles of operation and maintenance required to repair all systems of the modern automobile.
2. Safely and correctly maintain, diagnose and repair specific areas of the vehicle.
3. Effectively communicate vehicle diagnoses, repair procedures, and maintenance recommendations, accurately documenting all work performed in accordance with industry standards.
4. Apply the state and federal regulations of the Occupational Safety and Health Association (OSHA) and the Environmental Protection Agency (EPA).
5. Demonstrate proficiency in the use of industry-standard tools and precision measuring instruments.
6. Apply safe work habits and practices.

Required courses:

		48.00	42.00
AUT 3	Specialized Automotive Electronics		6.00
AUT 6	Automotive Electrical Systems Lecture		2.00
AUT 7	Automotive Electrical Systems Lab		2.00
AUT 8	Auto Engines Lecture		3.00
AUT 9	Automotive Engines Lab		3.00
AUT 20	Automotive Brakes/Suspension and Steering Systems Lecture		3.00
AUT 21	Automotive Brakes/Suspension and Steering Systems Lab		3.00
AUT 22	Automotive Heating and Air Conditioning Lecture		2.00
AUT 23	Automotive Heating and Air Conditioning Lab		2.00
AUT 30	Gas/Diesel Engine Performance Lecture		5.00
AUT 31	Gas/Diesel Engine Performance Lab		5.00
AUT 52	Automatic Transmissions/Transaxles Lecture		3.00
AUT 53	Automatic Transmissions/Transaxles Lab		3.00
AUT 56	Manual Transmissions/Drivetrains Lecture		2.00
AUT 57	Manual Transmissions/Drivetrains Lab		2.00
AUT 60	Hybrid and Alternative Fuel Technologies		2.00

Total: 48.00 42.00

Suggested Program Map

Required courses:

Units: 48.00 42.00

~~Term 1~~

AUT 3	Specialized Automotive Electronics	6.00
------------------	---	-----------------

Term 2 1

AUT 6	Automotive Electrical Systems Lecture	10.00
AUT 7	Automotive Electrical Systems Lab	2.00
AUT 20	Automotive Brakes/Suspension and Steering Systems Lecture	2.00
AUT 21	Automotive Brakes/Suspension and Steering Systems Lab	3.00
		3.00

Term 3 2

AUT 8	Auto Engines Lecture	12.00
AUT 9	Automotive Engines Lab	3.00
AUT 22	Automotive Heating and Air Conditioning Lecture	3.00
AUT 23	Automotive Heating and Air Conditioning Lab	2.00
AUT 60	Hybrid and Alternative Fuel Technologies	2.00
		2.00

Term 4 3

AUT 52	Automatic Transmissions/Transaxles Lecture	10.00
AUT 53	Automatic Transmissions/Transaxles Lab	3.00
AUT 56	Manual Transmissions/Drivetrains Lecture	3.00
AUT 57	Manual Transmissions/Drivetrains Lab	2.00
		2.00

Term 5.4

AUT 30

AUT 31

Gas/Diesel Engine Performance Lecture

Gas/Diesel Engine Performance Lab

10.00

5.00

5.00

Certificate of Achievement in Diesel Technology

About the Program

Program Goal: Career

GE Pattern(s): None

Program Code: 37941.01CA

See AS Degree in Diesel Technology.

Admission to the Program:

See AS Degree in Diesel Technology.

Program Learning Outcome(s):

Upon successful completion of the program, the student will be able to:

1. Explain the operation of diesel engine components and systems.
2. ~~Identify various diesel engine applications.~~
3. Apply the state and federal regulations of the Occupational Safety and Health Association (OSHA) and the Environmental Protection Agency (EPA).
4. Apply general principles of preventive maintenance to diesel repair.
5. Demonstrate proficiency in the use of industry-standard tools and precision measuring instruments.
6. Apply safe work habits and practices.
7. Troubleshoot and perform repairs on mechanical, electrical, hydraulic and electronic systems.
8. Use computers to diagnose equipment and research information.
9. Perform preventative maintenance such as engine tune-ups, front-end alignments, and brake adjustments.
10. Operate shop machinery and equipment, including hoists, hydraulic jacks, steam cleaners, floor jacks, disassembly stands, grinders, drill presses, hydraulic presses, and bead blasters.
11. Select and use precision tools such as torque wrenches, micrometers, dial indicators, tap and dies, and bore gauges.
12. Effectively communicate vehicle diagnoses, repair procedures, and maintenance recommendations, accurately documenting all work performed in accordance with industry standards.
13. ~~Maintain professional attitude in challenging working conditions.~~
14. ~~Develop self-confidence and pride in workmanship.~~
15. ~~Think analytically and make professional decisions.~~

Required courses:

		56.00 48.00
AUT 3	Specialized Automotive Electronics	6.00
AUT 6	Automotive Electrical Systems Lecture	2.00
AUT 7	Automotive Electrical Systems Lab	2.00
AUT 8	Auto Engines Lecture	3.00
AUT 9	Automotive Engines Lab	3.00
AUT 20	Automotive Brakes/Suspension and Steering Systems Lecture	3.00
AUT 21	Automotive Brakes/Suspension and Steering Systems Lab	3.00
AUT 22	Automotive Heating and Air Conditioning Lecture	2.00
AUT 23	Automotive Heating and Air Conditioning Lab	2.00
AUT 30	Gas/Diesel Engine Performance Lecture	5.00
AUT 31	Gas/Diesel Engine Performance Lab	5.00
AUT 52	Automatic Transmissions/Transaxles Lecture	3.00
AUT 53	Automatic Transmissions/Transaxles Lab	3.00
AUT 56	Manual Transmissions/Drivetrains Lecture	2.00
AUT 57	Manual Transmissions/Drivetrains Lab	2.00
AUT 73	Diesel Industry Technologies Lecture	3.00
AUT 74	Diesel Industry Technologies Lab	3.00
WLD 20	Beginning Welding	4.00
WLD 18	Introduction to Industrial Welding	2.00

Total: ~~56.00~~ 48.00

Suggested Program Map

Required courses:

Units: 56.00 48.00

Term 1		6.00
AUT 3	Specialized Automotive Electronics	6.00
Term 2-1		10.00
AUT 6	Automotive Electrical Systems Lecture	2.00
AUT 7	Automotive Electrical Systems Lab	2.00
AUT 20	Automotive Brakes/Suspension and Steering Systems Lecture	3.00
AUT 21	Automotive Brakes/Suspension and Steering Systems Lab	3.00

Certificate of Achievement in Automotive Technology - Honda, Professional Automotive Career Training (PACT)

About the Program

Program Goal: Career

GE Pattern(s): None

Program Code: 37972.01CA

See AS Degree in Automotive Technology - Honda, Professional Automotive Career Training (PACT).

Admission to the Program:

See AS Degree in Automotive Technology - Honda, Professional Automotive Career Training (PACT).

Program Learning Outcome(s):

Upon successful completion of the program, the student will be able to:

1. Explain the principles of operation and maintenance required to repair all systems of the modern automobile with emphasis on Honda and Acura automobiles.
2. Safely and correctly maintain, diagnose and repair specific areas of the vehicle with emphasis on Honda and Acura automobiles.
3. Effectively communicate vehicle diagnoses, repair procedures, and maintenance recommendations, accurately documenting all work performed in accordance with industry standards.
4. Apply the state and federal regulations of the Occupational Safety and Health Association (OSHA) and the Environmental Protection Agency (EPA).
5. Demonstrate proficiency in the use of industry-standard tools and precision measuring instruments.
6. Apply safe work habits and practices.

Required courses:

		53.50 49.50
AUT 3	Specialized Automotive Electronics	6.00
AUT 6	Automotive Electrical Systems Lecture	2.00
AUT 7	Automotive Electrical Systems Lab	2.00
AUT 8	Auto Engines Lecture	3.00
AUT 9	Automotive Engines Lab	3.00
AUT 20	Automotive Brakes/Suspension and Steering Systems Lecture	3.00
AUT 21	Automotive Brakes/Suspension and Steering Systems Lab	3.00
AUT 22	Automotive Heating and Air Conditioning Lecture	2.00
AUT 23	Automotive Heating and Air Conditioning Lab	2.00
AUT 30	Gas/Diesel Engine Performance Lecture	5.00
AUT 31	Gas/Diesel Engine Performance Lab	5.00
AUT 52	Automatic Transmissions/Transaxles Lecture	3.00
AUT 53	Automatic Transmissions/Transaxles Lab	3.00
AUT 56	Manual Transmissions/Drivetrains Lecture	2.00
AUT 57	Manual Transmissions/Drivetrains Lab	2.00
AUT 60	Hybrid and Alternative Fuel Technologies	2.00
AUT 81	Honda PACT Employment Preparation I	2.00 3.00
AUT 82	Honda PACT Employment Preparation II	2.00 3.00
AUT 83	Honda PACT Skills Certification	1.50

Total: ~~53.50~~ 49.50

Suggested Program Map

Required courses:

Units: 53.50 49.50

Term 1		6.00
AUT 3	Specialized Automotive Electronics	6.00
Term 2 1		10.00
AUT 6	Automotive Electrical Systems Lecture	2.00
AUT 7	Automotive Electrical Systems Lab	2.00
AUT 20	Automotive Brakes/Suspension and Steering Systems Lecture	3.00
AUT 21	Automotive Brakes/Suspension and Steering Systems Lab	3.00
Term 3 2		14.00 15.00
AUT 8	Auto Engines Lecture	3.00
AUT 9	Automotive Engines Lab	3.00
AUT 22	Automotive Heating and Air Conditioning Lecture	2.00

AUT 23	Automotive Heating and Air Conditioning Lab	2.00
AUT 60	Hybrid and Alternative Fuel Technologies	2.00
AUT 81	Honda PACT Employment Preparation I	2.00 3.00
Term 4 3		12.00 13.00
AUT 52	Automatic Transmissions/Transaxles Lecture	3.00
AUT 53	Automatic Transmissions/Transaxles Lab	3.00
AUT 56	Manual Transmissions/Drivetrains Lecture	2.00
AUT 57	Manual Transmissions/Drivetrains Lab	2.00
AUT 82	Honda PACT Employment Preparation II	2.00 3.00
Term 5 4		11.50
AUT 30	Gas/Diesel Engine Performance Lecture	5.00
AUT 31	Gas/Diesel Engine Performance Lab	5.00
AUT 83	Honda PACT Skills Certification	1.50
Total:		53.50 49.50

Certificate of Achievement in Plant Protection

About the Program

Program Goal: Career

GE Pattern(s): None

Program Code: 31512.00CA

This The Plant Protection Certificate prepares candidates for the California State Agricultural Pest Control Adviser (PCA) License examinations and Qualified Applicator License exams. Required courses meet the minimum educational qualifications for the PCA License, and prepares course objectives equip students for exams in IPM principles, laws and regulations, pest identification, physical and biological sciences, crop health, pest management systems and methods, and production systems. Technical experience is highly encouraged through work experience placement.

A rewarding career and competitive salary await licensed PCAs. Choose from several career avenues to choose from such as corporations, corporate entities, sole proprietary businesses, companies, state governmental agencies, and academic professions. There has never been a better time to enter the crop protection industry. Come and learn about agriculture, plants, and how we protect crops; it's a great time to join the crop protection industry.

Program Learning Outcome(s):

Upon successful completion of the program, the student will be able to:

1. Safely and accurately use all equipment and products relating to the plant protection industry.
 2. Demonstrate the most current methods and procedures in calibration of agriculture equipment.
 3. Apply necessary health and safety rules from the Environmental Protection Agency and the California Department of Pesticide Regulation (DPR).
 4. Demonstrate appropriate communications skills.
 5. Demonstrate an orderly performance of all tasks and skills, establishing methodical habits from state DPR laws and regulations.
1. Apply fundamental principles of physical and biological sciences to integrated pest management systems and agriculture production.
 2. Describe the safe and effective use of equipment and products related to the plant protection industry.
 3. Summarize mathematical methods and physical procedures for calibrating agriculture equipment.
 4. Identify and apply health and safety regulations from the Environmental Protection Agency (EPA) and the California Department of Pesticide Regulation (CA DPR).
 5. Interpret and utilize information from EPA registered pesticide labels to safely and effectively apply chemistries.
 6. Practice professional and safe work practices that establish methodical habits based on CA DPR laws and regulations.

Required courses:

EH 60	Principles of Integrated Pest Management (offered FA only)	42.00
<i>Physical, Biological Science and Natural Sciences (Select 12 units):</i>		3.00
AGS 20	Plant Science	12.00
BIOL 1	Introduction to Biology	3.00
BIOL 5	Ecology and Field Biology (Offered FA only)	4.00
BIOL 15	Introduction to Microbiology	4.00
BIOL 41	Cell and Molecular Biology	4.00
CHEM 51	Elementary Inorganic Chemistry	5.00
CHEM 52	Elementary Organic and Biochemistry	5.00
PSC 10	Introduction to Environmental Science	4.00
NR 55	Wildlife Management (Offered FA only)	4.00
<i>Crop Health (Select 9 units):</i>		9.00
AGS 30	Ecology of Insect and Disease Management (offered SP even years only)	3.00
AGS 50	General Soils	4.00
AGS 51	Fertilizers and Plant Nutrition (Offered SP odd years only)	3.00
EH 30	Irrigation Practices and Materials (Offered FA only)	3.00
EH 74	Irrigation System Design (Offered SP only)	3.00
AGS 99	Work Experience	3.00
<i>Pest Management (Select 3 units):</i>		3.00
EH 61	Plant Protection Materials (offered SP only)	3.00
EH 62	Weed Science and Invasive Plants (Offered SP even years only)	3.00
	AGS 99 Work Experience	3.00
<i>Production Systems (Select 6 units):</i>		6.00
EH 20	Introduction to Environmental Horticulture (Offered FA only)	3.00
EH 23	Fall Plant Identification (Offered FA only)	3.00
EH 24	Spring Plant Identification (Offered SP only)	3.00
EH 28	Turfgrass Management and Equipment	3.00
EH 38	Greenhouse Production (Offered SP only)	3.00
EH 40	Wine Grape Cultivation	3.00
EH 41	Wine Growing Practices—Fall	3.00
EH 42	Wine Growing Practices—Spring	3.00

EH 66	Orchard Production and Management (Offered SP only)	3.00
EH 70	Plant Propagation and Nursery Practices (Offered FA only)	3.00
NR 20	Introduction to Forestry and Natural Resources (Offered FA only)	3.00
AGS 99	Work Experience	3.00
AGS 40	Introduction to Animal Science (Offered FA only)	3.00
AGS 45	Feeds and Feeding (Offered SP only)	3.00

Select any 9 units Crop Health, Pest Management and Production Systems not **used** completed above. 9.00

Note: Each course only counts once toward the required course units. AGS 99 may be repeated if course objectives meet different category topics. One unique, 3-unit AGS99 course can be completed for the Select any 9 units category.

Total: 42.00

Suggested Program Map

Required courses:

Units: 42.00

Term 1 (Fall)

12.00-15.00

EH 60	Principles of Integrated Pest Management (Offered FA only)	3.00
<i>Physical, Biological, and Natural Sciences (Select one):</i>		3.00-5.00
AGS 20	Plant Science	3.00
BIOL 1	Introduction to Biology	4.00
BIOL 5	Ecology and Field Biology	4.00
BIOL 15	Introduction to Microbiology	4.00
Prerequisite: CHEM 51 or CHEM 1 and one year high school biology or, BIOL 1 or BIOL 2 or BIOL 20 or BIOL 21		
BIOL 41	Cell and Molecular Biology	5.00
Prerequisite: CHEM 1 and Intermediate Algebra or equivalent		
CHEM 51	Elementary Inorganic Chemistry	5.00
CHEM 52	Elementary Organic and Biochemistry	4.00
Prerequisite: CHEM 51		
PSC 10	Introduction to Environmental Science	4.00
NR 55	Wildlife Management (Offered FA only)	3.00
<i>Crop Health (Select one):</i>		3.00-4.00
AGS 30	Ecology of Insect and Disease Management	3.00
AGS 50	General Soils	4.00
AGS 51	Fertilizers and Plant Nutrition	3.00
EH 30	Irrigation Practices and Materials (Offered FA only)	3.00
EH 74	Irrigation System Design	3.00
AGS 99	Work Experience	3.00
<i>Production Systems (Select one):</i>		3.00
EH 20	Introduction to Environmental Horticulture (Offered FA only)	3.00
EH 23	Fall Plant Identification (Offered FA only)	3.00
EH 24	Spring Plant Identification	3.00
EH 28	Turfgrass Management and Equipment	3.00
EH 38	Greenhouse Production	3.00
EH 40	Wine Grape Cultivation	3.00
EH 41	Wine Growing Practices – Fall	3.00
EH 42	Wine Growing Practices – Spring	3.00
EH 66	Orchard Production and Management	3.00
EH 70	Plant Propagation and Nursery Practices (Offered FA only)	3.00
NR 20	Introduction to Forestry and Natural Resources (Offered FA only)	3.00
AGS 40	Introduction to Animal Science (Offered FA only)	3.00
AGS 99	Work Experience	3.00
<i>Term 2 (Spring)</i>		15.00-18.00 12.00-15.00
<i>Physical, Biological, and Natural Sciences (Select one):</i>		3.00-5.00
AGS 20	Plant Science	3.00
BIOL 1	Introduction to Biology	4.00
BIOL 5	Ecology and Field Biology	4.00
BIOL 15	Introduction to Microbiology	4.00
BIOL 41	Cell and Molecular Biology	5.00
CHEM 51	Elementary Inorganic Chemistry	5.00
CHEM 52	Elementary Organic and Biochemistry	4.00
PSC 10	Introduction to Environmental Science	4.00
<i>Crop Health (Select one/two):</i>		6.00-7.00 3.00-4.00
AGS 30	Ecology of Insect and Disease Management (Offered SP even years only)	3.00
AGS 50	General Soils	4.00
AGS 51	Fertilizers and Plant Nutrition (Offered SP odd years only)	3.00
EH 30	Irrigation Practices and Materials	3.00
EH 74	Irrigation System Design (Offered SP only)	3.00
AGS 99	Work Experience	3.00
<i>Pest Management (Select one):</i>		3.00
EH 61	Plant Protection Materials (Offered SP only)	3.00
EH 62	Weed Science and Invasive Plants (Offered SP even years only)	3.00
AGS 99	Work Experience	3.00

<i>Production Systems (Select one):</i>		3.00
EH-20	Introduction to Environmental Horticulture	3.00
EH-23	Fall Plant Identification	3.00
EH 24	Spring Plant Identification (Offered SP only)	3.00
EH-28	Turfgrass Management and Equipment	3.00
EH 38	Greenhouse Production (Offered SP only)	3.00
EH-40	Wine Grape Cultivation	3.00
EH-41	Wine Growing Practices—Fall	3.00
EH-42	Wine Growing Practices—Spring	3.00
EH 66	Orchard Production and Management (Offered SP only)	3.00
EH-70	Plant Propagation and Nursery Practices	3.00
NR-20	Introduction to Forestry and Natural Resources	3.00
AGS 45	Feeds and Feeding (Offered SP only)	3.00
AGS 99	Work Experience	3.00
<i>Term 3 (Fall)</i>		15.00-19.00
<i>Physical, Biological, and Natural Sciences (Select one or two to meet 12 units):</i>		19.00-23.00
		67.00-10.00
AGS 20	Plant Science	3.00
BIOL 1	Introduction to Biology	4.00
BIOL 15	Introduction to Microbiology	4.00
BIOL 41	Cell and Molecular Biology	5.00
CHEM 51	Elementary Inorganic Chemistry	5.00
CHEM 52	Elementary Organic and Biochemistry	4.00
BIOL 5	Ecology and Field Biology (Offered FA only)	4.00
PSC 10	Introduction to Environmental Science	4.00
NR 55	Wildlife Management (Offered FA only)	3.00
<i>Crop Health (Select one):</i>		3.00-4.00
AGS-30	Ecology of Insect and Disease Management	3.00
AGS-50	General Soils	4.00
AGS-51	Fertilizers and Plant Nutrition	3.00
EH-30	Irrigation Practices and Materials	3.00
EH-74	Irrigation System Design	3.00
Select any 9 units Crop Health, Pest Management and Production Systems not used completed		9.00
<i>Only if necessary to meet 42 minimum units required.</i>		

Total: 42.00

Certificate of Achievement in Recording Arts

About the Program

Program Goal: Career
 GE Pattern(s): None
 Program Code: 33182.00CA

See AS Degree in Recording Arts.

Program Learning Outcome(s):

Upon successful completion of the program, the student will be able to:

1. Apply modern music composition techniques in digital audio workstations.
2. Implement modern mixing techniques in digital audio.
3. Identify signal flow in the recording chain.
4. Identify the different types of microphones and the proper use of each type in recording situations.
5. Demonstrate competency in computer recording processes in a studio recording.
6. Demonstrate applied skills in gain staging in analog and digital recordings.
7. Demonstrate proper etiquette and interpersonal skills while working on group projects.

Required courses:

MUS 3	Music Fundamentals	24.00 28.00-30.00	3.00
MUS 40	Piano I		1.00
MUS 41	Piano II		1.00
MUS 51	Digital Music Production I		3.00
MUS 52	Introduction to Recording Techniques		3.00
MUS 53	Digital Music Production II		3.00
MUS 54	Studio Recording I		3.00
MUS 55	Studio Recording II		3.00
MUS 80	Theory & Musicianship I		4.00
MUS 90	Introduction to the Music Industry		2.00

Select one:

MUS-20	Guitar-I	1.00
MUS-30	Voice-I	1.00
MUS-40	Piano-I	1.00

Select one:

MUS 21	Guitar-II	2.00-4.00
MUS 34	Voice-II	1.00
MUS 41	Piano-II	1.00
MUS 4	Songwriting	2.00
MUS 82	Music Theory & Musicianship II	4.00
RTVF 30	Beginning Audio Production	3.00

Total: 24.00 28.00-30.00

Required courses:**Units: 24.00***Term 1*

MUS 3	Music Fundamentals	10.00
MUS 40	Piano I	3.00
MUS 51	Digital Music Production I	1.00
MUS 52	Introduction to Recording Techniques	3.00
<i>Select one:</i>		3.00
MUS-20	Guitar I	1.00
MUS-30	Voice I	1.00
MUS-40	Piano I	1.00

Term 2

MUS 41	Piano II	11.00
MUS 53	Digital Music Production II	1.00
MUS 54	Studio Recording I	3.00
		3.00

MUS 80

Theory & Musicianship I 4.00

Select one:

MUS 21	Guitar II	1.00
MUS 31	Voice II	1.00
MUS 41	Piano II	1.00

Term 3

MUS 55	Studio Recording II	3.00
		3.00

Total: 24.00

Certificate in Business on the Web

About the Program

Program Goal: Career

GE Pattern(s): None

Program Code: BUSONWEB.CC

(Not Eligible for Financial Aid) Students are introduced to web marketing tools, strategies, application and measurement. It examines benefits and challenges associated with web marketing technologies including web site development, search engine optimization, online advertising, social media, email campaigns, blog marketing, digital public relations, multimedia and mobile marketing. Students will learn how to create a web marketing strategy and then apply web marketing technologies in a measurable way to achieve business objectives.

The certificate is designed to provide students with an exposure to web marketing tools and strategies which would qualify the student to work as a web assistant to help manage a company's online presence.

Program Learning Outcome(s):

Upon successful completion of the program, the student will be able to:

1. **Understand** **Articulate** business terms and concepts, and effectively communicate using the language of business.
2. Make effective web-based business decisions using a systematic, evaluative, information-based approach.

Required courses:

BCIS 13	Business Communication	15.00
		3.00
BCIS 15	Web-based Tools for Business	3.00
BCIS 17	Artificial Intelligence Tools for Business	3.00
BUS 25	Introduction to Entrepreneurship	3.00
BUS 64	Principles of Marketing	3.00
BUS 68	Web Marketing	3.00

Total: 15.00

Suggested Program Map

Required course:

Units: 15.00

Term 1

BCIS 13	Business Communication	15.00
		3.00
BCIS 15 BCIS 17	Web-based Tools for Business Artificial Intelligence Tools for Business	3.00
BUS 25	Introduction to Entrepreneurship	3.00
BUS 64	Principles of Marketing	3.00
BUS 68	Web Marketing	3.00

Total: 15.00