

**OPPORTUNITIES FOR A NEW LIFE:
INMATE EDUCATIONAL, VOCATIONAL AND BEHAVIORAL
TRAINING AT SOLEDAD'S CORRECTIONAL TRAINING FACILITY**



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SUMMARY

Each year the Civil Grand Jury tours each of the jail and prison facilities within Monterey County. This year, while touring the Correctional Training Facility (CTF) in Soledad, the jury noticed that there appeared to be a number of inmate classroom and shop activities in progress. Wondering about the nature and extent of all academic, vocational and rehabilitative programs that were made available to CTF inmates, the Jury decided to investigate. The results of that investigation were surprisingly impressive.

BACKGROUND

Every year, thousands of inmates leave California prisons and jails and return to their families and communities. While some are able to reintegrate into their communities, find jobs, and become useful members of society, others commit new crimes and end up being reincarcerated. Although a number of factors account for why some ex-prisoners succeed and some don’t, experts believe that a lack of education and skills is one key reason. For that reason, correctional education programs—whether academically- or vocationally-focused—are a particularly important service when made available by correctional facilities.

In August 2013, the RAND Corporation released its 85-page report entitled *Evaluating the Effectiveness of Correctional Education, A Meta-Analysis of Programs That Provide Education to Incarcerated Adults*.¹ The study was funded

¹ Davis, Lois M., Robert Bozick, Jennifer L. Steele, Jessica Saunders and Jeremy N. V. Miles. Evaluating the Effectiveness of Correctional Education: A Meta-Analysis of Programs That

by the Bureau of Justice Assistance, U.S. Department of Justice, with the assistance of the Office of Vocational and Adult Education. After conducting a comprehensive literature search, the authors undertook a meta-analysis² to examine the association between correctional education and reductions in recidivism, improvements in employment after release from prison, and learning in math and in reading. They summarized their key findings as follows:

- “Our meta-analytic findings provide additional support to the premise that receiving correctional education while incarcerated reduces an individual’s risk of recidivating after release. After examining the higher-quality studies, we found that, on average, inmates who participated in correctional education programs had 43 percent lower odds of recidivating than inmates who did not.... This translates as a reduction in the risk of recidivating of 13 percentage points for those who participate in correctional education programs versus those who do not.”
- “We found that inmates who participated in high school/GED programs had 30 percent lower odds of recidivating than those who had not.”
- “When examining the relationship between correctional education and post-release employment, one might expect vocational training programs to be more adept than academic education programs at imparting labor market skills, awarding industry-recognized credentials, or connecting individuals with prospective employers. And, indeed, when we looked at the relationship between vocational training—versus academic correctional education programs—and post release employment, we found that individuals who participated in vocational training programs had odds of obtaining post release employment that

Provide Education to Incarcerated Adults. Santa Monica, CA: RAND Corporation, 2013.
http://www.rand.org/pubs/research_reports/RR266.html.

² A meta-analysis uses a statistical approach to combine the results from multiple studies in an effort to increase power (over individual studies), improve estimates of the size of the effect, and/or to resolve uncertainty when reports disagree.

were 28 percent higher than individuals who had not participated in vocational training.”

- “In comparison, individuals who participated in academic programs (combining ABE, high school/GED, and postsecondary education programs) had only 8 percent higher odds of obtaining post release employment than individuals who had not participated in academic programs.”
- “State policymakers, corrections officials, and correctional education administrators are asking a key question: How cost-effective is correctional education? In other words, although our findings clearly show that providing correctional education programs is more effective than not providing them, such programs have costs. Thus, to place our meta-analytic findings into context, we undertook a cost analysis using estimates from the literature of the direct costs of correctional education programs and of incarceration itself, and using a three-year reincarceration rate. Our estimates show that the direct costs of providing education to a hypothetical pool of 100 inmates would range from \$140,000 to \$174,400 with three-year reincarceration costs being between \$0.87 million to \$0.97 million less for those who receive correctional education than for those who do not.”

This grand jury report reviews the nature and scope of the Soledad Correctional Training Facility’s (CTF’s) academic, vocational and behavioral treatment programs. The report then tries to determine the degree to which these programs meet CTF’s primary rehabilitative and re-entry mission objectives.

METHODOLOGY

Jury members toured the academic and vocational training facilities at CTF, met with training instructors, met with inmate personnel at the Veterans Services office, met with Reentry Hub Program leaders, reviewed the RAND report, and

received and reviewed correspondence and documentary materials from CTF's warden, training instructors and education department personnel.

DISCUSSION

The Correctional Training Facility (CTF) in Soledad, California, is a Level 2 prison. Its primary mission is to provide custody, care, treatment, and rehabilitative programs for minimum- and medium-security inmates. CTF is designated as a "Re-entry Hub" whose stated focus is to provide life skills for inmates through academic and vocational education classes, behavioral therapy, and paid work assignment experiences in Prison Industries Authority (PIA) projects. The ultimate goal of these programs is successful inmate re-integration into California communities at the time of their release.

All CTF inmates are required to take a TABE® reading test as part of the facilities reception process. TABE³ is an academic assessment product used in adult basic education. Educators use TABE testing to help assess the skills and knowledge of adult learners. Based on the test results, the inmate's educational level and CTF program requirement, the inmate is given an education "assignment." There may be a significant wait between testing and finding the appropriate assignment level, especially when the inmate lacks sufficient English skills.

Inmates also take CASAS tests⁴ to assess literacy development and employability skills awareness. The results of these tests and the TABE test are reviewed with the inmate to assess strengths, areas for improvement and the potential need for ESL support.

³ Test of Adult Basic Education (TABE).

⁴ The Comprehensive Adult Student Assessment System (CASAS) is employed in California to provide assessments, data collection, software and materials, as well as technical assistance to meet the accountability requirements for federally supported California basic and literacy education programs for adults who lack basic skills, a high school diploma, or proficiency in English.

California law⁵ requires that prisons provide literacy programs for inmates who score below a ninth grade reading level as assessed by the TABE testing. For any inmate enrolled in an academic or vocational program, the Statewide Literacy Plan requires that they receive daily literacy instruction until their reading level reaches the TABE reading level 9.0. At CTF, improved literacy skills are gained through its Adult Basic Education (ABE) program.

CTF programs and services fall into one of four general categories: Academic, Vocational, Reentry Hub, and Veteran's Services. While the latter service is not, primarily directed toward obtaining employment skills, it nevertheless plays an important educational role as will be explained later in this discussion.

A. ACADEMIC PROGRAMS

This category includes three programs: Mandatory Adult Basic Education (3 ABE levels), Voluntary Education and College. Students can move between programs as their skills allow.

1. Mandatory Adult Basic Education

Inmates who receive a TABE score of 0.0 to 3.9 are enrolled in ABE I. These students lack basic skills in math, English, and/or reading or they may be English Language Learners. These students require special support and tutoring to develop basic academic, language and life skills.

Inmates who receive a TABE score of 4.0 to 6.9 are enrolled in ABE II. They have acquired sufficient basic English and math skills to enhance their academic development, and they may be able to work more independently than ABE I students.

⁵ The Prison Literacy Act (Penal Code sections 2053 and 2053.1) and the California Statewide Literacy Plan (SB949).

Inmates who receive a TABE score of 7.0 to 8.9 are enrolled in ABE III. These students are encouraged to further develop their math and language skills in order to move up to the general educational development (GED) coursework.

After students attain a 9.0 TABE reading score they are eligible for the GED testing process, which includes targeted tests to determine areas needing improvement. A course of study with GED teachers is then developed. After a student demonstrates competency in the five GED subject areas, he/she takes a pre-GED examination to pinpoint any remaining areas of weakness. When a student completes the pre-GED test successfully, he/she can take the on-line five-subject GED examination.

2. Voluntary Education Program (VEP)

This program offers inmates access to educational programming when a formal educational assignment is not currently available. It also serves as a supplement to traditional educational programming, GED preparation, and support for college students.

3. College

College education is offered at CTF through Coastline Community College, Lassen Community College, Palo Verde Community College and Feather River College. Two hundred ninety-four (294) students were enrolled in the fall of 2015. In addition, inmates can also independently correspond with those colleges to pursue college degrees in a broad choice of majors.

B. REENTRY HUB: BEHAVIORAL THERAPY

The goal of Reentry Hub therapy is to provide inmates with the skills and tools they need to successfully reenter society, find employment and eliminate or reduce their risk for recidivism following their release.

Inmates approaching their release date are separately housed as a group in a specially designated area of the CTF facility. There, over the course of a year, they cycle through the following Reentry Hub programs: Substance Abuse Treatment, Anger Management, Criminal Thinking Behavior, Family Relations, Transitions/Employability, and the California Identification Program. Placement in each program is based on the inmate's remaining time to serve and a Correctional Offender Management Profiling for Alternative Sanctions (COMPAS) needs assessment.

1. Substance Abuse

This program uses the substance abuse intervention program developed by the University of Cincinnati. The curriculum is designed for individuals who have substance abuse issues of the type that often lead to criminal behavior. The program is 150 days in length and meets 5 days each week.

2. Anger Management

This program curriculum addresses aggression, impulse control, hostility, anger and tendencies toward violence. The program is 90 days in length and meets 2 days per week.

3. Criminal Thinking

This program curriculum addresses behaviors and associations regarding criminal thinking, including moral development, narcissism, low ego, resistance to change, defensive attitudes and reasoning, and other behavioral traits that lead to criminal activity. The program is 90 days in length and meets 2 days per week.

4. Family Relations

This program curriculum addresses family and marital relationships. Also included are parenting, domestic violence, and family reunification for inmates

who have had limited contact with family members. The program is 6 months in length and meets 1 day per week.

5. Transitions

This program addresses transitions planning, job searching, job applications, winning resumes, job interviewing skills, one-stop career center orientation, and financial literacy. The program is 5 weeks in length and meets 5 days per week.

6. California Identification Program

All inmates approaching their release date are screened 6 months prior to parole and, if eligible, receive a State of California Identification Card (CAL-ID) when released in order to satisfy federal requirements for obtaining employment. The CAL-ID Card Program provides a valid California identification card to eligible inmates in accordance with California Penal Code Section 3007.05. Possession of a CAL-ID card is a critical component for employment and other services. Employment increases an ex-offender's opportunities to obtain housing and health care, comply with court-ordered debts, such as restitution and child-support, and support him or her and family.

In order to participate in THE CAL-ID program, offenders must:

- Be within 120-210 days of release;
- Have no active felony hold, warrant, or detainer that may result in additional incarceration following release;
- Not have an active Immigration and Customs Enforcement hold, which would result in deportation;
- Provide a valid Social Security number;
- Have been issued a California identification card or driver's license from the Department of Motor Vehicles within the previous 10 years; and
- Provide a physical address, including a zip code.

C. VETERANS SERVICE CENTER

While technically not a program designed by CTF to educate or provide vocational re-entry skills to inmates, the broad scope of services offered at this center is available to both veterans and non-veterans alike, according to their individual needs. The CTF Veterans Service Center was the first of its kind established in any prison in the United States. The Center is operated on a daily basis by long-term dedicated CTF inmates.

The Veterans Service Center was first established in 2005, following federal enactment of Public Law 107-95 (2001). The stated goal of that act was to end chronic homelessness among veterans. Then, in 2012, California enacted AB 2490⁶, which directed the California Department of Corrections and Rehabilitation to establish programs to assist incarcerated U.S. military veterans and their families in obtaining access to veterans' benefits and services available through the United States Department of Veterans Affairs, the State, and California Counties. Since then, the scope of services offered through the center has expanded to provide access to comprehensive benefit counseling, V.A. medical care, educational benefits (including those for eligible dependent children), V.A. claims assistance, public assistance, transitional housing, V.A. disability claims, dependent indemnity compensation and assistance, compensation apportionment for eligible spouse, dependent children and dependent parents, requests for military records, State veterans homes, burial benefits, pension benefits and parole planning.

At the end of November 2015, the Veterans Service Office reported that it had assisted in the recovery of over \$15,069,340 in earned disability compensation. In addition, \$14,289,278 was made available to the families of incarcerated veterans through the VA program of apportionment of benefits. In addition to CTF, the Veterans Service Office now serves 33 California Prisons, 41 prisons in

⁶ An act to add Chapter 4 (commencing with Section 1840) to Division 8 of the Military and Veterans Code, and to add Article 6 (commencing with Section 2695) to Chapter 4 of Title 1 of Part 3 to the Penal Code, relating to veterans.

23 other states, 4 federal prisons, and the U.S. Army Disciplinary Barracks, located at Fort Leavenworth, Kansas.

D. VOCATIONAL TRAINING COURSES

Vocational training opportunities at CTF are quite varied and offer surprising subject-matter depth. Most vocational courses require students to first complete an introductory “CORE” level of training appropriate to the selected vocation before moving on to more in-depth subject matter.

The selection of vocational courses includes Auto Body, Auto Mechanics, Carpentry, Computer Literacy, Office Services, Construction Technology, Electrical Works, Electronics, HVAC, Masonry, Plumbing, Small Engines, and Welding. Most of these programs enable students to obtain national certifications in their chosen field. More detailed information regarding each course of vocational training follows.

1. Auto Body And Paint

The Auto Body & Paint vocational training consists of two module levels for course completion and two additional advanced levels that are electives. Inmates (students) need a minimum of 1100 hours for basic program completion. The student may then continue on to complete advanced elective module levels 3 & 4, which require an additional 900 hours of training. Industry certification as a Master Collision Repair Technician is available through the National Institute for Automotive Service Excellence (ASE) for students who successfully test in all four levels.

This course teaches students those physical tasks and skills necessary for performing auto body and paint repair work in a commercial body shop setting. Students learn the use of hand and power tools associated with cutting, welding, and grinding sheet metal, and to cut, remove and replace damaged sections of sheet metal. They become familiar with those techniques necessary to measure

and straighten auto body frames with the use of hydraulic equipment. Finally, students learn how to finish (sand and fill), prime and paint the completed body repairs. Apart from mechanical skills, students develop essential active listening skills to be applied while working with their supervisor(s) and customers. Other critical skills include complex problem solving, speaking, and working with others. This course prepares a student to become an Auto Body and Related Repairer⁷, capable of repairing and refinishing automotive vehicle bodies and straightening vehicle frames. A worker in this position is expected to be able to do this job after 12 months of on-the-job training. The mean hourly wage for the occupation of body & paint technician in California is \$22.00 per hour, with average job openings of 410 per year from 2012 to 2022. Detailed course content is set forth in **FIGURE 1**.

⁷ United States Department of Labor, Bureau of Labor Statistics, Standard Occupational Classification 49-3021 in California.

FIGURE 1 - AUTO BODY COURSE CONTENT

LEVEL 1

Shop & Site Safety
Tools & Equipment
Job Preparation
Automotive Detailing
Estimating
New Technology Students will Demonstrate Knowledge and Understanding of Units 2-6
Painting & Refinishing- Safety Precautions
Painting & Refinishing- Surface Preparations
Painting & Refinishing- Spray Gun & Related Equipment Operation
Painting & Refinishing- Paint Mixing, Paint Matching & Applying
Painting & Refinishing- Paint Defects, Causes & Cures
New Technology Students will Demonstrate Knowledge and Understanding of Units 8-12

LEVEL 2

Non Structural Analysis & Damage Repair (Body Component) Preparation
Non Structural Analysis & Damage Repair (Body Component) Outer Body Panel Repair
Non Structural Analysis & Damage Repair (Body Component) Metal Body & Body Filling
Non Structural Analysis & Damage Repair (Body Component) Moveable Glass and Hardware
Non Structural Analysis & Damage Repair (Body Component) Metal Welding & Cutting
Non Structural Analysis & Damage Repair (Body Component) Plastics & Adhesives
New Technology Students will Demonstrate Knowledge and Understanding of Units 14-19

LEVEL 3

Structural Analysis & Damage Repair- Frame Inspection & Repair
Structural Analysis & Damage Repair- Unibody Inspection, Measurement, & Repair
Structural Analysis & Damage Repair- Fixed Glass
Structural Analysis & Damage Repair- Metal Welding and Cutting
New Technology Students will Demonstrate Knowledge and Understanding of Units 21-24

LEVEL 4

Mechanical & Electrical Components- Suspension and Steering
Mechanical & Electrical Components- Electrical
Mechanical & Electrical Components- Brakes
Mechanical & Electrical Components - Heating & Air Conditioning
Mechanical & Electrical Components- Cooling Systems
Mechanical & Electrical Components- Drive Train
Mechanical & Electrical Components- Fuel, Intake and Exhaust Systems
Mechanical & Electrical Components- Restraint Systems (Active Restraint Systems)
Mechanical & Electrical Components- Restraint Systems (Passive Restraint Systems)
Mechanical & Electrical Components- Restraint Systems (Supplemental Restraint Systems SRS)
New Technology Students will Demonstrate Knowledge and Understanding of Units 26-35

2. Auto Mechanics

The Auto Mechanics vocation consists of a CORE level and three (3) advanced levels and takes at least one year for the student to complete. The inmate (student) must be dedicated and possess above average mechanical aptitude. The student will learn all phases of automotive repair and maintenance. Upon completion of the course the

student will be eligible to apply for national certification by the National Association for Automotive Service Excellence (ASE). The textbooks are from the NCCER Content Learning Series called Auto Mechanics, volume levels one, two and three.

The National Institute for Automotive Service Excellence (ASE) is a voluntary certification program established to provide certification in eight areas of specialization, at the journeyman level of certification, and at the Master Automobile Technician level. It was founded to address the severe shortage of trained automotive technicians and to develop a standardized training process and curriculum. Today, ASE is recognized by hundreds of leading manufacturers, dealers, service stations, independent shops, and other national associations.

Students will study in depth analysis and troubleshooting techniques. They will use assorted hand and power tools, develop use of computer-aided diagnostic equipment, and learn spatial problem-solving skills. The course prepares students to become Automotive Service Technicians and Mechanics,⁸ able to diagnose, adjust, repair and overhaul automotive vehicles. The mean hourly wage for the occupation of Automotive Service Technician in California is \$27.34 per hour, with projected average annual job openings of 2,590. Detailed course content is set forth in **FIGURE 2**.

⁸ United States Department of Labor, Bureau of Labor Statistics, Standard Occupational Classification 49-3023 in California.

FIGURE 2 – AUTO MECHANICS COURSE CONTENT

LEVEL 1 -Introduction to the Automotive Industry

Safety
Shop Orientation
Basic Technician Skills
Wheels, Tires, and Wheel Bearings
Suspension System Principles
Suspension System Service
Steering System Principles
Steering Service
Brake System Principles
Brake System Service
Drum Brake System Principles
Drum Brake System Inspection and Service
Disc Brake System Principles
Disc Brake System Inspection and Service
Antilock Brakes, Electronic Stability Control, and Power Assist
Electrical/Electronic System Principles
Basic Electrical/Electronic System Service
Starting and Charging System Principles
Starting and Charging System Service
Lighting and Electrical Accessories
Engine Performance Principles
Engine Mechanical Testing and Service
Engine Performance Service
Automatic and Manual Transmissions
Heating and Air Conditioning
Vehicle Maintenance

LEVEL 2 - Introduction to Brakes

Shop Safety and Environmental Protection
Brake Tools, Shop Equipment & Service Information
Hydraulic System Fundamentals
Master Cylinders, Calipers, and Wheel Cylinders
Master Cylinder, Caliper, and Wheel Cylinder Service
Power Assist Units
Power Assist Service
Hydraulic Valves, Switches, Lines, and Hoses
Hydraulic Valve, Switch, Line, Hose Service
Friction Brake Theory
Disk Brake System Components and Operation
Disk Brake Service
Drum Brake System Components and Operation
Drum Brake Service
Wheel Bearings and Oil Seals
Wheel Bearing and Oil Seal Service
Parking Brakes
Parking Brake Service
Brake System Electrical and Electronic Components
Anti-Lock Brake and Traction Control System Components and Operation

Anti-Lock Brake and Traction Control System Service
Troubleshooting Brake Systems and Steering.

LEVEL 3 - Basic Suspension and Steering Systems Operation

Shop Safety and Environmental Protection
Special Service Tools and Equipment
Common Suspension System Components
Front Suspension Systems
Front Suspension System Service
Rear Suspension Systems
Rear Suspension System Service
Steering Systems
Steering Linkage and Manual Steering Gear Service
Power Steering and Four-Wheel Steering Service
Driveline and Wheel Components
Driveline and Wheel Service
Electronic Suspension and Steering Systems
Electronic Suspension and Steering Service
Wheel Alignment Principles
Wheel Alignment Procedures
Suspension and Steering Troubleshooting

LEVEL 4 - Introduction to Automotive Heating, Air Conditioning, and Ventilation

Shop Safety and Environmental Protection
HVAC Tools, Equipment, and Service Information
AC Electrical and Electronic Fundamentals
Principles of Refrigeration
Refrigerants, Refrigerant Oils, and Related Chemicals
Hoses, Lines, Fittings, and Seals
Compressors, Clutches, and Drives
Evaporators, Condensers, Accumulators and Receiver-Driers
Control Valves and Switches
Engine Cooling Systems and Vehicle Heaters
Air Delivery Systems
Manual HVAC Controls
Automatic Temperature Control Systems
Refrigeration System Diagnosis and Leak Detection
Refrigerant Recovery, Recycling and Handling
Hose, Line, Fitting and O-Ring Service
Compressor and Clutch Service
Valve, Evaporator, Condenser, and Related Parts Service
Heater and Engine Cooling System Service
Air Delivery and Manual HVAC Control Service
Automatic Temperature Control System Service
Air Conditioning System Installation and Retrofitting

3. Carpentry

Carpentry is a one year program during which the student learns basic carpentry skills such as framing, construction laboring, drywall and suspended ceiling installing, tapering, site helping, and some cabinet making. Upon completion of the course, the student will be eligible to apply for national certification in carpentry by the National Center for Construction and Education Research (NCCER). The Carpentry vocation consists of a CORE level and three (3) advanced levels for the student to complete. The textbooks are from the NCCER Contren Learning Series called Carpentry, volumes level one, two, & three. NCCER is a not-for-profit 501(c) (3) construction education foundation created in 1996. Students are currently being assigned. The class will be filled with twenty-seven (27) students, taught by an instructor and three teacher's aides. Details of course content are set forth in **FIGURE 3**.

The successful completion of this course prepares students for employment as Carpenters⁹ and Construction Laborers¹⁰. Employers typically expect Carpenters to be able to do the job after a minimum of 12 months of on-the-job training. The mean rate of pay for this occupation is \$25.97 per hour in California, where it was projected to have 3,970 openings per year between 2012 and 2022.

Employers usually expect Laborers to be able to do the job after Moderate-term on-the-job training (1-12 months). The mean rate of pay for this occupation is \$20.35 per hour in California, where it was projected to have 5,510 openings per year between 2012 and 2022.

⁹ United States Department of Labor, Bureau of Labor Statistics, Standard Occupational Classification 47-2031 in California.

¹⁰ United States Department of Labor, Bureau of Labor Statistics, Standard Occupational Classification 47-2061 in California.

FIGURE 3 – CARPENTRY COURSE CONTENT

CORE

Basic Safety
Introduction to Construction Math
Introduction to Hand Tools
Introduction to Power Tools
Introduction to Construction Drawing
Basic Rigging
Basic Communication Skills
Basic Employability Skills
Introduction to Materials Handling

LEVEL ONE

Orientation to the Trade
Building Materials, Fasteners, &
Adhesive
Hand & Power Tools
Reading Plans and Elevations
Floor Framing
Wall and Ceiling Framing
Roof Framing
Introduction to Concrete &
Reinforcing Material
Windows and Exterior Doors
Basic Stair Layout

LEVEL 2

Commercial Drawings
Roofing Applications
Thermal and Moisture Protection
Exterior Finishing
Cold-Formed Steel Framing
Drywall Installation
Drywall Finishing
Doors and Door Hardware
Suspended Ceiling s
Window, Door, Floor, and Ceiling
Trim
Cabinet Installation
Cabinet Fabrication

LEVEL 3

Rigging Equipment
Rigging Practices
Properties of Concrete
Reinforcing of Concrete
Handling and Placing Concrete
Trenching and Excavating
Foundations and Slab-on-Grade
Vertical Formwork
Horizontal Formwork
Tilt-up Wall Panels

4. Computer Literacy

In this course the instructor lectures and trains the students to meet the basic requirements for employability in today's high tech world, where digital literacy is a requirement. The program is structured to graduate students having at least 255 hours of training over the course of six (6) months. It involves a total of fifty-four (54) students split into two daily classes of 3.25 hours/day.

Successful course graduates can earn an Internet and Computing Core Certification (IC3®) by Certiport. Established in 1997, Certiport provides complete career-oriented certification solutions to academic institutions and IT Professionals. These services encompass test development, psychometrics, program management, sales and marketing for the official Microsoft® Office certification program, the Microsoft® Technology Associate certification program, the Adobe® Certified Associate certification program, the Adobe® Certified Expert program, the HP Accredited Technical Associate, the CompTIA Strata™ IT Fundamentals, the Autodesk® Certified User certification program, the Intuit® QuickBooks Certified User certification program and the IC3 Digital Literacy certification.

This IC3 Internet and Computing Core Certification Guide program is rigorously applied in the Computer Literacy classrooms and its protocols are followed exactly in daily instruction. The curriculum consists of systematic instruction, using visual (Smart Board), auditory (Learn Key Training), readings in the IC3 curriculum book and student demonstration exercises that verify student aptitude to successfully execute each objective of the curriculum. The Certiport Certification that students earn is an internationally recognized qualifying standard of computer literacy useful to potential employers, since the course covers a wide range of critical “real world applications” for use in today's business world.

Successfully completing this course enables students to be employed as General Office Clerks¹¹. However, they are able to perform duties more varied and diverse than those needed for this occupational classification. Clerical duties may be assigned in accordance with the office procedures of individual establishments and may include, among other things, a combination of answering telephones, bookkeeping, typing or word processing, office machine operation, and filing. The mean hourly rate for those classified as General Office Clerks is \$16.24 per hour in California, where it was projected to have an average of 9,950 openings per year. Details of the Computer Literacy course content are set forth in **FIGURE 4**.

¹¹ United States Department of Labor, Bureau of Labor Statistics, Standard Occupational Classification 43-9061 in California.

FIGURE 4 – COMPUTER LITERACY COURSE CONTENT

<u>Module</u> <u>V01.02.</u>	<u>Educational Component</u> <u>Instructional</u>	<u>Instructional Method</u>
01.	Orientation	Orientation Packet
02.	Shop and Site Safety	Introductory Power Point Presentation and Safety Orientation
03.	Employer Expectations	Text and Quiz, Writing a Resume
04.	Finding and Applying for a Job	Text and Quiz
05.	CPU Hardware, Peripherals and Troubleshooting	Learn Key Systems Audio/Visual Program
06.	CPU Software	Learn Key Systems Audio/Visual Program
07.	CPU Operating Systems	Learn Key Systems Audio/Visual Program
08.	Keyboarding	Mavis Beacon Software Training
09.	Applications - Program Functions	Learn Key Systems Audio/Visual Program
10.	Applications - Word Processing	Learn Key Systems Audio/Visual Program
11.	Applications - Spreadsheet Features	Learn Key Systems Audio/Visual Program
12.	Applications - Presentation Software	Learn Key Systems Audio/Visual Program
13.	Concepts of Networks, Intranet and Internet	Learn Key Systems Audio/Visual Program
14.	Communication and Collaboration	Learn Key Systems Audio/Visual Program
15.	Internet and the Worldwide Web	Learn Key Systems Audio/Visual Program
16.	Computer and Society	Learn Key Systems Audio/Visual Program
17.	Employer Expectations (Review)	Text and Quiz
18.	New Technology	Review of Exercises in IC' Section 3

5. Office Services & Related Technologies

This vocational course, related to the Computer Literacy Course, is currently closed to intake until a new instructor is hired. When the class begins again, the instructor lectures and trains the students to be able to demonstrate focused knowledge as a Microsoft Office Specialist at the pre-apprentice to apprentice level. After successful completion of the course, students have the ability to be employed as word processors, typists, and office clerks. The students are educated in IC3 Internet & Computing Core, Microsoft Word, Excel, Power Point, and Windows OSC. The course consists of the Computer Literacy course materials plus two additional levels of training. Data regarding mean hourly rates and projected annual job openings for this specialty occupation were not available. Further details of the course content are set forth in **FIGURE 5**. All instruction includes Microsoft Office Specialist approved courseware.

FIGURE 5 - OFFICE SERVICES & RELATED TECHNOLOGIES COURSE CONTENT

Level 1 - IC3 Internet & Computing Core Module
Computing Fundamentals
Key Applications
Living Online

Level 2 - Microsoft Word & Windows Operating System
Editing & Formatting Documents
Enhancing & Customizing Documents
Referencing & Sharing Information

Level 3A – Microsoft Excel & Windows Operating System
Preparing & Formatting Worksheets
Enhancing the Display of Workbooks
Advanced Formatting, Formulas, & Data Management
Managing & Integrating Data & the Excel Environment

Level 3B - Microsoft PowerPoint & Windows Operating System
Creating & Formatting PowerPoint Presentations
Customizing & Enhancing PowerPoint Presentations

6. Construction Technology

This one year course covers multiple construction-related techniques, such as plumbing, block, brick, and concrete, roofing, framing, site layout, and electrical. NCCER certifications are available for successfully completing each course of study, level and practical “hands on” applications practice. Currently there are twenty-seven (27) students assigned to the course with three (3) teaching aides assisting the Instructor.

The Construction Technology vocation consists of a CORE introduction and two (2) levels for the student to complete. The textbooks are from the NCCER Contren Learning Series called Construction Technology, volumes level one and two. The successful completion of this course prepares students for employment as Carpenters¹², Construction Laborers¹³, Drywall and Ceiling Tile Installers¹⁴, and Cement Masons and Concrete Finishers.¹⁵ Details of course content are set forth in **FIGURE 6**.

Employers typically expect Carpenters to be able to do the job after a minimum of 12 months of on-the-job training. The mean rate of pay for this occupation is \$25.97 per hour in California, where it was projected to have 3,970 openings per year between 2012 and 2022. Employers usually expect Laborers to be able to do the job after Moderate-term on-the-job training (1-12 months). The mean rate of pay for this occupation is \$20.35 per hour in California, where it was projected to have 5,510 openings per year between 2012 and 2022.

Employers usually expect Drywall and Ceiling Tile Installers to be able to do the job after Moderate-term on-the-job training (1-12 months). The mean rate of pay for this

¹² United States Department of Labor, Bureau of Labor Statistics, Standard Occupational Classification 47-2031 in California.

¹³ United States Department of Labor, Bureau of Labor Statistics, Standard Occupational Classification 47-2061 in California.

¹⁴ United States Department of Labor, Bureau of Labor Statistics, Standard Occupational Classification 47-2081 in California.

¹⁵ United States Department of Labor, Bureau of Labor Statistics, Standard Occupational Classification 47-2051 in California.

occupation is \$27.31 per hour in California, where it was projected to have 950 openings per year between 2012 and 2022.

Employers typically expect Cement Mason and Concrete Finishers to be able to do the job after a minimum of 12 months of on-the-job training. The mean rate of pay for this occupation is \$23.95 per hour in California, where it was projected to have 750 openings per year between 2012 and 2022.

FIGURE 6 – CONSTRUCTION TECHNOLOGY COURSE

CORE

Basic Safety
Introduction to Construction Math
Introduction to Hand Tools
Introduction to Power Tools
Introduction to Construction Drawing
Basic Rigging
Basic Communication Skills
Basic Employability Skills
Introduction to Materials Handling

LEVEL 1

Site Layout One: Distance Measuring and Leveling
Introduction to Concrete, Reinforcing Materials, and Forms
Handling and Placing Concrete
Introduction to Construction Technology

Construction Technology Units and Installation Techniques
Floor Systems
Wall and Ceiling Framing
Roof Framing
Roofing Applications

LEVEL 2

Exterior Finishing
Basic Stair
Electrical Safety
Residential Electrical Services
Introduction to HV AC
Introduction to Drain, Waste, and Dent (OWV) Systems
Plastic Pipes and Fittings
Copper Pipe and Fittings

7. Electric Works

This Electric Works course teaches enrolled inmates the technical aspects of electrical work, while at the same time providing actual hands-on opportunities to practice their newly learned skills on small scale construction projects. The instructor lectures and demonstrates how to do basic electrical wiring of a home or office building. Students learn the skeletal structure of a home and identify the various types of current, how it is wired and how to access it at its source. Students are also given hands-on tasks, such as installing an overhead light fixture and any electrical circuits that are associated with it. They are also taught how to troubleshoot electrical systems. The course requires a one-year commitment to complete. Certification is available from the National Center for Construction and Educational Research (NCCER). NCCER is a not-for-profit 501(c) (3) construction education foundation created in 1996. At present, the class is comprised of an instructor, 27 students and 3 teaching aides. Detailed course contents are set forth in **FIGURE 7**.

The course prepares students to become Electricians¹⁶ after a minimum of 12 months of on-the-job training. The mean pay rate for this occupation is \$31.36 per hour in California, where it was projected to have an average of 2000 openings each year between 2012 and 2022. This course also prepares students to become Construction Laborers¹⁷ after a moderate term (1-12 months) of on-the-job training. The mean pay rate for workers in this occupation is \$20.36 per hour in California, where it was projected to have an average of 5510 openings each year between 2012 and 2022.

¹⁶ United States Department of Labor, Bureau of Labor Statistics, Standard Occupational Classification in California.

¹⁷ United States Department of Labor, Bureau of Labor Statistics, Standard Occupational Classification 47-2061 in California.

FIGURE 7 - ELECTRIC WORKS COURSE CONTENT

CORE

Basic Safety
Introduction to Construction Math
Introduction to Hand Tools
Introduction to Power Tools
Introduction to Construction Drawing
Basic Rigging
Basic Communication Skills
Basic Employability Skills
Introduction to Materials Handling

LEVEL 1

Orientation to the Trade
Electrical Safety
Introduction to Electric Grunts
Electric Theory
Five Introductions to NEC
Six Device Boxes
Hand Bending
Raceways and Fittings
Conductors and Cables
Basic Electrical Construction Drawings
Residential Electrical Services
Electrical Test Equipment

LEVEL 2

Alternating Current
Two Motors: Theory and Application
Electric Lighting
Conduit Bending
Nine Grounding and Bonding
Circuit Breakers and Fuses
Control Systems and Fundamental Concepts
Conductor Termination and Splices
Pull and Junction Boxes
Conduit Installations
Seven Cable Tray

LEVEL 3

Load Calculations- Branch and Feeder Circuit
Two Conductor Selecting and Calculations
Three Practical Applications of Lighting Hazardous Locations
Over current Protection
Distribution Equipment
Transformers
Commercial Electrical Services
Motor Calculations Voice, Data, and Video
Motor Controls

LEVEL 4

Load Calculations- Feeders and Services
Health Care Facilities
Standby and Emergency Systems
Basic Electronic Theory
Alarm Systems
Specialty Transformers
Advanced Controls
AC Controls
Heat Tracing and Freeze Protection
Motor Operations and Maintenance
Medium-Volt Terminations/Splices
Special Locations
Fundamentals of Crew Leadership

8. Electronics

In this course, the instructor lectures and demonstrates the technical tools of the electronics technician vocation, including, among other aspects of electronics, low voltage, DC circuits, grounding, buses, networks, maintenance, repair, audio systems and security systems. Students also develop hands-on skills in electronics. The program requires at least a one (1) year commitment after which students will obtain certifications as an Electronics Systems Technician. This program consists of three levels of certification in networking, cable, and fiber optic technology. The certifications are by the National Center for Construction and Educational Research (NCCER). NCCER is a not-for-profit 501(c) (3) construction education foundation created in 1996. There are currently twenty-seven (27) students with three teacher aides.

The Electronics program consists of five levels of training and practice: core, and levels 1-4. Textbooks are from the NCCER Contren® Learning Series. The program prepares students to become Electrical and Electronic Engineering Technicians.¹⁸ The mean pay rate for this occupation is \$31.78 per hour in California, where it was projected to have an average of 470 openings per year between 2012 and 2022. Details of course content are set forth in **FIGURE 8**.

¹⁸ United States Department of Labor, Bureau of Labor Statistics, Standard Occupational Classification 17-3023 in California.

FIGURE 8 – ELECTRONICS COURSE CONTENT

CORE

Basic Safety
Introduction to Construction Math
Introduction to Hand Tools
Introduction to Power Tools
Introduction to Construction Drawing
Basic Rigging
Basic Communication Skills
Basic Employability Skills
Introduction to Materials Handling

LEVEL 1

Introduction to the Trade
Construction Methods 1
Construction Methods 2
Four Pathways and Spaces
Mathematics
Hand Bending Conduit
National Electric Code
Low Voltage Cabling

LEVEL 2

DC Circuits
AC Circuits
Switches and Timers
Semiconductors IC
Test Equipment
Six Drawings
Codes and Standards
Cable Selection
Cable Terminations
Grounding

LEVEL 3

Buses and Networks
Fiber Optics
Wireless Communication
Project Planning
Crew Leadership
Rack Assembly
Systems Commissioning
Maintenance and Repair

LEVEL 4

Audio Systems
Video Systems
Broadband Systems
Media Systems
Telecommunications
Network Systems
Call Security Systems

9. Heating, Ventilization, Air Conditioning (HVAC)

The HVAC course teaches enrolled inmates the technical aspects of heating, ventilation, air-conditioning and refrigeration mechanics, while at the same time providing actual hands-on opportunities to practice their newly learned skills on small scale construction projects. The course requires a one-year commitment to complete and is certified by the National Center for Construction and Educational Research (NCCER). NCCER is a not-for-profit 501(c) (3) construction education foundation created in 1996. At present, the class is comprised of an instructor, 27 students and 3 teaching aides.

The HVAC training consists of five levels of study and practice. The textbooks used are from the NCCER Contren® Learning Series. The five levels are referred to as the “CORE” level and levels one through four. This course prepares students to become Heating/Air Conditioning and Refrigeration Workers¹⁹ after a minimum of 12 months of on-the-job training. The mean pay rate for workers in this occupation is \$26 per hour in California, where it was projected to have an average of 970 openings each year between 2012 and 2022.

This course also prepares students to become Construction Laborers²⁰ after moderate-term (1-12 months) on-the-job training. The mean pay rate for workers in this occupation is \$20 per hour in California, where it was projected to have an average of 5510 job openings/year between 2012 and 2022. Course content is set forth in **FIGURE 9**.

¹⁹ United States Department of Labor, Bureau of Labor Statistics, Standard Occupational Classification in California.

²⁰ United States Department of Labor, Bureau of Labor Statistics, Standard Occupational Classification 47-2061 in California.

FIGURE 9 - HVAC COURSE CONTENT

CORE

Basic Safety
Introduction to Construction Math
Introduction to Hand Tools
Introduction to Power Tools
Introduction to Construction Drawing
Basic Rigging
Basic Communication Skills
Basic Employability Skills
Introduction to Materials Handling

LEVEL 1

Introduction to HVAC
Trade Mathematics
Copper and Plastic Piping Practices
Soldering and Brazing
Ferrous Metal Piping Practices
Basic Electricity
Introduction to Cooling
Introduction to Heating
Water Treatment!

LEVEL 2

Commercial Airside Systems
Chimneys, Vents, and Flues
Introduction to Hydronic Systems
Air Quality Equipment
Leak Detection, Evacuation, Recovery, and
Charging
Alternating Current
Basic Electronics
Introduction to Control Circuit
Troubleshooting
Troubleshooting Gas Heating
Troubleshooting Cooling
Even Heat Pumps
Basic Installation and Maintenance Practices
Sheet Metal Duct Systems
Fiberglass and Flexible Duct Systems

LEVEL 3

Refrigerants and Oils
Compressors
Metering Devices
Retail Refrigeration Systems
Commercial Hydraulic Systems
Steam Systems
Planned Maintenance
Troubleshooting Electronic Controls
Troubleshooting Oil Heating
Troubleshooting Heat Pumps
Troubleshooting Accessories

LEVEL 4

Construction drawings and specifications
System balancing
Indoor air quality
Energy conservation equipment
Building maintenance systems
System startup and shutdown
Heating and cooling system design
Commercial and industrial refrigeration
Alternative heating and cooling systems
Introduction to supervisory skills

10. Masonry

Masonry students learn a variety of skills; including basic bricklaying, block construction, preparing mortar, spreading, cutting and furrowing, buttering joints, and understanding wall structures. The student learns how to construct fire places and benches and to erect pillars. Top skills used in this job are active listening, coordination and operation monitoring. The student also learns how to perform tasks involving physical labor at building, highway, and heavy construction project sites, tunnel and shaft excavations and demolition sites. Techniques are developed for smoothing and finishing surfaces of poured concrete, such as floors, walks, sidewalks, roads, or curbs, using a variety of hand and power tools. This one year course accommodates 27 students, and is taught by an instructor and three teaching aides. The course consists of four components, including the Core component and three skill levels. Details of course content are set forth in **FIGURE 10.**

The course prepares students to become Cement Masons and Concrete Finishers.²¹ Employers usually expect a person in this occupation to do the job after a minimum of 12 months of on-the-job training. The mean pay rate for this occupation is \$23.95 per hour in California, where it was projected to have 750 job openings each year from 2012 to 2022.

The course also prepares students to become Construction Laborers²². Employers usually expect a person in this occupation to do the job after 1 to 12 months of on-the-job training. The mean pay rate for this occupation is \$20.35 per hour in California, where it was projected to have 5,510 job openings each year through 2022.

²¹ United States Department of Labor, Bureau of Labor Statistics, Standard Occupational Classification 47-2051 in California.

²² 47-2061.

FIGURE 10 - MASONRY COURSE CONTENT

CORE

Basic Safety
Introduction to Construction Math
Introduction to Hand Tools
Introduction to Power Tools
Introduction to Construction Drawing
Basic Rigging
Basic Communication Skills
Basic Employability Skills
Introduction to Materials Handling

LEVEL 1

Introduction to Masonry
Masonry Tools and Equipment
Measurements, Drawings, and
Specifications
Mortar
Masonry Units and Installation
Techniques

LEVEL 2

Residential Plans and Drawing
Interpretation
Residential Masonry
Grout and Other Reinforcement
Metal Work in Masonry
Advanced Laying Techniques
Construction Techniques and Moisture
Control
Construction Inspection and Quality
Control

LEVEL 3

Masonry in High Rise Construction
Specialized Materials and Techniques
Repair and Restoration
Commercial Drawing
Estimating
Site Layout- Distance Measurement
Introductory Skills for Crew Leader

11. Plumbing

In this course, the instructor lectures and demonstrates the technical tools of the plumbing trade, including water distribution, drain, waste, vent, and gas pipe systems. Students learn how to set fixtures and read basic plumbing blueprints. They also have the opportunity to learn hands-on skills on small scale construction related projects. The class requires a one-year commitment to complete and is certified by the National Center for Construction and Educational Research (NCCER). NCCER is a not-for-profit 501(c) (3) construction education foundation created in 1996. At present, the class is comprised of an instructor, 27 students and 3 teaching aides.

Plumbing training consists of five levels of study and practice. The textbooks used are from the NCCER Contren® Learning Series. The five levels are referred to as the “CORE” level and levels one through four. The course prepares students to become Plumbers, Pipefitters, and Steamfitters²³ after a minimum of 12 months of on-the-job training. The mean pay rate for this occupation is \$30.29 per hour in California, where it was projected to have an average of 1250 openings/year (between 2012 and 2022.) This course also prepares students to become Construction Laborers²⁴ after a moderate term (1-12 months) of on-the-job training. The mean pay rate for workers in this Occupation is \$20.35 per hour in California, where it was projected to have an average of 5510 job openings each year between 2012 and 2022. Details of course content are set forth in **FIGURE 11**.

²³ United States Department of Labor, Bureau of Labor Statistics, Standard Occupational Classification 47-2152 in California.

²⁴ United States Department of Labor, Bureau of Labor Statistics, Standard Occupational Classification 47-2061 in California.

FIGURE 11 – PLUMBING COURSE CONTENT

CORE

Basic Safety
Introduction to Construction Math
Introduction to Hand Tools
Introduction to Power Tools
Introduction to Construction Drawing
Basic Rigging
Basic Communication Skills
Basic Employability Skills
Introduction to Materials

LEVEL 1

Introduction to the Plumbing Profession
Plumbing Safety
Tools of the Plumbing Trade
Introduction to Plumbing Math
Introduction to Plumbing Drawings
Plastic Pipe and Fittings
Copper Tube and Fittings
Cast iron Pipe and Fittings
Carbon Steel Pipe and Fittings
Introduction to Plumbing Fixtures
Introduction to Drain, Waste, Vent Systems
Introduction to Water Distribution Systems

LEVEL 2

Plumbing Math Two
Reading Commercial Drawings
Hangers, Supports, Structural Penetrations, Fire Stopping
Installing and Testing DWV Piping
Installing Roof, Floor, and Area Drains
Types of Venting
Installing and Testing Water Supply Piping
Installing Fixtures, Values, and Facets
Introduction to Electricity
Installing Water Heaters
Fuel Gas Systems
Servicing of Fixtures, Values, and Facets

LEVEL 3

Applied Math
Sizing Water Supply Piping
Potable Water Treatment
Backflow Preventers
Types of Venting
Sizing DWV and Storm Systems
Sewage Pumps and Sump Pumps
Corrosive-Resistant Waste Piping
Compressed Air

LEVEL 4

Business Principles for Plumbing
Introductory Skills for the Crew Leader
Water Pressure Booster
Indirect and Special Waste
Hydronic and Solar Heating System Codes
Servicing Piping Systems Fixtures, and Appliances
Private Water Supply Well Systems
Private Waste Disposal Systems
Summarizing Pools and Hot Tubs
Plumbing for Mobile Homes

12. Small Engine Repair

This course teaches enrolled inmates (students) the manipulative and mental skills necessary to troubleshoot, evaluate, disassemble, repair and reassemble non-automotive machinery and small engines such as lawn mowers, generators, weed-eaters, chain saws, and motor cycles. Four Stroke, Two Stroke and Associated Electrical Certifications are through the nationally accredited Equipment & Engine Training Councils (E.E.T.C). Course completion takes from six months to one year. The class has two teaching aides to assist the instructor and 27 students.

Students completing this course are employable as Outdoor Power Equipment Mechanics.²⁵ Employers generally expect individuals in this occupation to be able to successfully perform the work after one to twelve months of on-the-job training. The mean pay rate for workers in this occupation is \$17.66 per hour in California, where it was projected to have an average of 60 openings each year between 2012 and 2022. The small engine course consists of a CORE section followed by three additional levels of instruction. Details of course content are set forth in **FIGURE 12**.

²⁵ United States Department of Labor, Bureau of Labor Statistics, Standard Occupational Classification 49-3053 in California.

FIGURE 12 – SMALL ENGINE REPAIR COURSE COMPONENTS

CORE

Basic Safety
Introduction to Construction Math
Introduction to Power Tools
Introduction to Construction Drawing
Basic Rigging
Basic Communication Skills
Basic Employable Skills
Introduction to Materials Handling

LEVEL 1

Introduction to Small Engine Repair
Small Engine Repair Tools &
Equipment
Measurements, Drawings &
Mortar
Small Engine Repair Units &
Installation

LEVEL 2

Residential Plans & Drawing
Interpretation
Residential Small Engine Repair
Introduction to Hand Tools
Grout and Other Reinforcement
Metal Work in Small Engine Repair
Advanced Laying Techniques
Construction Techniques & Moisture
Control
Construction Inspection & Quality
Control

LEVEL 3

Small Engine Repair in High Rise
Construction
Specialized Materials & Techniques
Repair and Restoration
Commercial Drawing
Estimating Specifications Site Layout-
Distance Measurement & Leveling
Introductory Skills for Level Crew
Leader

13. Welding

The Welding vocation consists of training in CORE subjects and has three (3) additional levels for the student to complete. Among other skills, the curriculum includes the use of riggings, power tools, and various methods for welding all types of metal. The subject matter and necessary hands-on skills may take one or more years to master. In addition to the instructor, the class has 27 students and three teaching aides.

Students are eligible to receive National Center for Construction and Education Research (NCCER) certification. In addition to the NCCER Certificate, students can also be certified in Shielded Metal Arc Welding (SMAW), Flux Core Arc Welding (FCAW), Gas Metal Arc Welding (GMAW), and Gas Tungsten Arc Welding (GTAW). The course prepares students for the occupations of Structural Metal Fabricators and Fitters²⁶, and Welders, Cutters, Solderers, and Brazers.²⁷

Structural Metal Fabricators and Fitters have a mean pay rate of \$19.61 per hour in California, where this occupation was projected to have an average of 290 openings each year between 2012 and 2022.

Welders, Cutters, Solderers, and Brazers have a mean pay rate of \$20.81 per hour in California, where this occupation was projected to have an average of 770 openings each year between 2012 and 2022. Details of course content are set forth in

FIGURE 13.

²⁶ United States Department of Labor, Bureau of Labor Statistics, Standard Occupational Classification 51-2041 in California.

²⁷ United States Department of Labor, Bureau of Labor Statistics, Standard Occupational Classification 51-4121 in California.

FIGURE 13 – WELDING COURSE COMPONENTS

CORE

Basic Safety
Introduction to Construction Math
Introduction to Hand Tools
Introduction to Power Tools
Introduction to Construction Drawing
Basic Rigging
Basic Communication Skills
Basic Employability Skills
Introduction to Materials Handling

LEVEL 1

Welding Safety
Oxyfuel Cutting
Plasma Arc Cutting
Air Carbon Arc Cutting and Gouging
Base Metal Preparation
Weld Quality
SMA W Equipment Setup
Shield Metal Arc Electrodes
SMAW Beads/Fillet Welds
Joint-Fit Up & Alignment
SMAW Groove Welds with Backing
SMAW Open V-Groove Welds

LEVEL 2

Welding Symbols
Reading Welding Detail Drawings
Physical Characteristics and Mechanical Properties of Metal
Reheating and Post Heating of Metals
GMA W /PCA W Equipment and Filler Metals
GTAW/ FCAW: Plate
GTAW: Equipment and Filler Metals
GTAW: Plate

LEVEL 3

SMAW Open Root Pipe Welds
Pipe
FCAW Pipe
GTAW-Carbon Steel Pipe
Low Alloy & Stainless Steel Pipe
Stainless Steel Groove Welds

FINDINGS

- F1. The scope of Academic, Vocational and Re-Entry programs at the California Correction Facility is commendably broad.
- F2. The content of the Academic, Vocational and Re-Entry programs at the California Correction Facility is impressive.
- F3. Program leaders and course instructors appear to be well qualified to provide the necessary leadership and instruction in regard to their respective roles.

RECOMMENDATIONS

None.

