

CALIFORNIA APPRENTICESHIP COUNCIL SURVEYOR
INDUSTRY ADVISORY COMMITTEE

SURVEYORS

INDUSTRY TRAINING CRITERIA

OCCUPATION CODES:

O*Net 17.3031.01 Chief of Party

O*Net 17.3031.01 Chainman/Rodman

Occupation Codes:

O*Net	17.3031.01	Chief of Party
O*Net	17.3031.01	Chainman/Rodman

Minimum Requirements

1. LENGTH OF TRAINING

Program sponsors shall establish a minimum of 2 -2-year provisional programs, of not less than 8,000 hours of on-the-job training.

2. RELATED AND SUPPLEMENTAL INSTRUCTION

The required prescribed courses of related and supplemental instruction shall be no less than 144 hours per year. This instruction must include, at a minimum, the related and supplementary training processes listed in Exhibit "A".

3. ON-THE-JOB TRAINING

(Skills to be learned) See Exhibit "B."

4. COMPETENCY TESTING

All applicants for apprenticeship must pass a minimum entrance exam to be administered by an appropriate proctor.

5. PROGRESS ADVANCEMENT

- A. All apprentices must pass a competency test prior to advancement to their next level of training. The test shall be based on Related and Supplemental Instruction and manipulative skills tests for the Chainman/Rodman levels.
- B. All apprentices must pass a competency test prior to advancement to their next level of training. The test shall be based on Related and Supplemental Instruction and satisfactory on-the-job performances for the Chief of Party level.
- C. Each level of advancement is based on satisfactory completion of a minimum of 500 hours to a maximum of 1,000 hours of on-the-job related training hours in conjunction with completion of the appropriate approved classroom curriculum and supplemental requirements of Standard First Aid, Sexual Harassment Training, and any additional State of California DAS requirements.
- D. There will be four (4) class term units of related curriculum instruction to graduate to Chainman/Rodman level.

E. There will be an additional four (4) class term units of related curriculum instruction to graduate to Chief of Party level.

6. COMPLETION PERCENTAGES

The program sponsors who are not able to demonstrate a completion rate of 35% of apprentices indentured into their program after the stated probationary period will be subject to review by the Division of Apprenticeship Standards.

EXHIBIT "A"
PROPOSED RELATED AND SUPPLEMENTAL INSTRUCTION TOPICS
FOR FIELD SURVEYOR INDUSTRY

RELATED AND SUPPLEMENTAL INSTRUCTION

1. Calculating using math, algebra, geometry, trigonometry and coordinate geometry
2. Safety -Standard First Aid, CPR, tool, roadway and jobsite safety procedures
3. Note keeping and sketching
4. Use and care of basic tools & equipment
5. Methods of Subdivision, Property and Heavy Construction Work Processes
6. Use of calculators and computers
7. Use and care of survey instruments and survey equipment, including field checks and adjustments
8. Maps and Plan Reading for Topographic, Subdivision, Heavy Construction and Hydrographic Surveys
9. Advanced calculations, conversions, reductions, quantities and use of surveying software
10. Public relations, survey law, ethics, and leadership as a Party Chief
11. Geodesy and Global Navigation Satellite Systems unit
12. Public Land Survey System, retracement, property surveys, reading and writing legal descriptions
13. All survey related work on Solar Photovoltaic Installation jobsites for the Field and Construction Survey processes, may also include, but is not limited to, work on jobsites pertaining to Wind, Water, Electrical and Solar Energy
14. Survey related training and methods shall recognize and include "green curriculum" as appropriate

EXHIBIT "B"

WORK PROCESSES: The major work processes on which Registered Apprentices will be trained, although not necessarily in the order listed, and the approximate hours, not necessarily continuous to be spent on each item so long as the Registered Apprentices show proficiency in each of the following:

CHAINMAN/RODMAN APPRENTICE Hours

Use and care for hand tools (other than survey equipment)	
Use and care for survey hand tools	
Use and care for rods, chains and related equipment	
Hand signals, land surveying terms and definitions	
Hubs, reference points and monuments	
Marker stakes	
Bench marks and turning points	
First Aid	
Safety measures	
Use of calculators	
Care of survey instruments and other special equipment	
Total Hours	4000

CHIEF OF PARTY APPRENTICE Hours

Completion of Chainman/Rodman work processes and	4000
Use and care of survey instruments and other special equipment	1200
Use and care of levels	500
Notes and sketches	200
Calculations	250
Reductions	200
Conversions	200
Maps	250
Plans	250
Record keeping	250
Job analysis for efficient field procedures	440
First Aid	8
Safety measures	120
Public relations and client diplomacy; professional status and ethics	132
Total	8000

*Party Chief Requirement 1000
 1000 of the 8000 hours must be worked at Party Chief Classification.

CALIFORNIA APPRENTICESHIP COUNCIL
SURVEY INDUSTRY

The foregoing Minimum Industry Training Criteria for the Surveyor occupations, being in conformity with the rules and regulations of the California Apprenticeship Council and the California Code of Regulations, are hereby approved by

/s/ Eric Rood

8/3/2023

Eric Rood, Secretary
California Apprenticeship Council

Date