



NSSPS



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CST
CERTIFIED SURVEY TECHNICIAN

Survey Technician Certification Program

Revised August 21, 2023

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EMPLOYERS

**LEARN THE
VALUE**



ABOUT

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**START THE
PROGRAM**



The Certified Survey Technician program (CST) is a comprehensive national certification program for survey technicians and is sponsored by the National Society of Professional Surveyors.



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WHAT IS THE CST PROGRAM?

Four levels of certification are offered in two primary tracks – field and office. Certification is by examination, which must be monitored by an approved Proctor.



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WHAT IS THE CST PROGRAM?

The Certified Survey Technician Board administers the program, which is intended to gauge technical capabilities and general knowledge of workplace safety and procedures.



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CST BOARD MISSION:

- To promote and recognize the importance of technicians to the surveying and mapping profession.
- To encourage and support the development of competent technicians.



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CST PROGRAM GOALS:

- Recognize the important contribution that technicians provide to the surveying and mapping profession.
- Provide credentials to technicians for career advancement.
- Identify those technicians who have achieved specific technical competencies.
- Provide employers with a way to evaluate applicants and an opportunity to promote the quality of their technical staff.



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CST TRACK CHART

	Level 1 <i>no experience</i>	Level 2 <i>minimum 1.5 years total experience</i>	Level 3 <i>minimum 3.5 years total experience</i>	Level 4 <i>minimum 5.5 years total experience</i>
Office Track	Entry Level Position	Computer Operator	Chief Computer Operator	Survey Office Manager
Field Track	Entry Level Position	Instrument Person	Party Chief: Boundary or Construction	Survey Field Manager

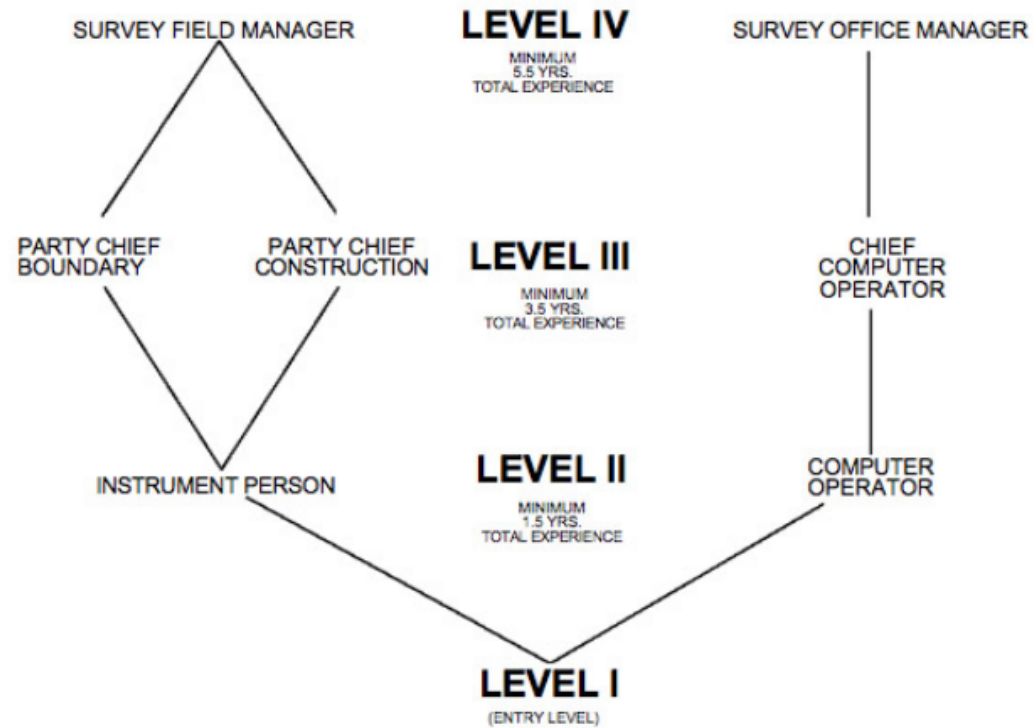


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CST TRACK CHART

FIELD TRACK

OFFICE TRACK



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CST STUDY GUIDES



Entry Level

LEVEL 1

1.5 years experience

LEVEL 2

3.5 years experience

LEVEL 3

Must be Level 3

LEVEL 4

Licensed Land Surveyors may start at any level

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CST – BY THE NUMBERS

- Approximately 950 CST exams are administered yearly
- There are over 2400 active CST's



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CST – CERTIFICATION

- Gives important and needed recognition to survey technicians; those who we trust with our license, our reputation and our daily well being and peace of mind.



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CST – LEGAL ASPECTS

- Certification does not license individuals to practice surveying. Professional surveying licensing is regulated by individual state boards of registration.
- This certification program is sponsored by NSPS and should not be confused with any other certification program.



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SEALS AND STAMPS

- No official seal or stamp for the CST Program
- No legal standing
- Appropriate recognition:
- Signature
- CST level
- CST certificate number
- Ex. Susan S. Smith, CST Computer II (0588-1234)
- Any improper use will result in revocation of certification and inability to continue in the CST Program



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USES OF THE CST PROGRAM

- Registered state apprenticeship program in our area of the profession by private industry or state society.
- Validation/Assessment Exam by educational programs.
- Working with Military Credentialing Agencies to establish Memoranda of Agreements. Allows members of the military to prepare for civilian certifications prior to leaving the service.



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CST PROGRAM USERS - PUBLIC

- Virginia State Board of Registration - FS exam
- Maryland Society of Surveyors
- Washington DC Metropolitan Area Transit Authority
- City of Orlando, FL
- City of Virginia Beach, VA
- Arizona and Minnesota DOTs
- Florida Surveying And Mapping Society, Tallahassee, FL
- Michigan Society of Professional Surveyors - Survey Technician Council
- Texas Society of Professional Surveyors
- Department of Public Works, Las Vegas, NV
- New Hampshire Land Surveyors Association
- District of Columbia Association of Land Surveyors
- North Carolina Society of Surveyors



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CST PROGRAM USERS - PRIVATE

- MSA Consulting - Rancho Mirage, CA
- McKim & Creed - Wilmington, NC
- Westwood Professional Services - MN
- Mid State Technical College - Wisconsin Rapids, WI
- E & A Consulting - Omaha, NE
- Southeastern Surveying & Mapping - Tallahassee, FL
- Jones Carter - Katy, TX
- Delta Land Surveying - Lubbock, TX
- Vincennes University - Vincennes, IN
- FR Aleman - Miami, FL
- Control Point Associates - Warren, NJ
- C.H. Fenstermaker - Lafayette, LA
- Charles P. Johnson & Associates, Inc. - Silver Spring, MD
- CEC - Pittsburgh, PA
- University of Akron - Akron, OH



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TECHNICIAN BENEFITS:

- Recognition by Peers and Employers
- Personal Pride - Achieving Certification
- Pay – CST's make about 10% more
- Better qualified peers makes your job easier
- Career and Employment opportunities improve - “CST Preferred” and “CST Required”
- Prepares you for other professional exams
- CST Program compliments training
- Skills will improve – making advancement possible
- Certification improves image of survey technicians within the profession



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EMPLOYER BENEFITS:

- Sets a standard for your technical staff
- Can be used as a hiring requirement
- Can be used as a marketing tool - incorporated in your QA/QC Program
- Can be used as a career ladder which creates a promotional tool within your firm or agency
- Can be used in conjunction with training
- Raises the bar and creates healthy competition
- Better qualified staff – more production - more profit – you can pay your staff more – you can attract better staff – your job becomes easier
- Better qualified staff – less mistakes – reputation improves – more business



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CONSUMER AND PUBLIC BENEFITS:

- Can be used as a contract requirement for Design Build and construction contracts.
- Can be used as a pre-qualification requirement in A/E procurement (Brook's Act).
- Can be used as a contract requirement for professional survey services contracts.
- Improves confidence in services procured



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EXAM FORMATS & RULES

- All exams open book tests.
- Bound books. No loose notes.
- Level I, II and III are multiple choice exams.
- Level IV is take home, open book, essay exam, similar to a college level term paper.
- Exam formats: On-line or paper
- No personal computers, laptops or keyboard style hand-held computers are allowed at the exams site.
- Data collectors are not allowed.
- See Calculator policy in Program Book.



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EXAM NOTES AND RECOMMENDATIONS

- The exam is a challenging timed test. You must be prepared to move purposefully through four hours of testing.
- Study, review, and practice in the Work Element areas is important to prepare you for the questions and to be successful.
- These tests require a fair amount of computations.
- Study, Study, Study
- Research the Work Elements
- Practice taking the sample exams and solve as many survey questions as you can
- Get into testing shape
- See “Setting up a CST Training Program” Power Point for more information



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LEVEL I EXAM

- Entry level exam
- No minimum experience required
- The Level I exam has 200 questions
- Four hours allowed for the completion of the exam
- Exam budget 1.2 minutes per question or 50 questions per hour



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LEVEL I EXAM

Work Elements

Questions
per Examination

1) Survey Types and History	15
2) Field Equipment & Operations	75
3) Survey Control	6
4) Survey Computations	50
5) Office Operations, Plan Reading and Preparation	34
6) First Aid and Safety	20

TOTAL QUESTIONS 200



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LEVEL II EXAM

- 3000 hours, or 1.5 years of surveying experience required (up to 750 hours can be education = 1 year full-time with a minimum of 12 credit hours per term - 24 credit hours)
- 130 questions - multiple choice
- Four hours allowed for the completion of the exam
- Field Track Examination
- Office Track Examination
- Exam budget 1.85 minutes per question or 32.5 questions per hour



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LEVEL II EXAM

Questions per Examination

Work Elements	Field	Office
1) Survey Types and History	7	10
2) Field Equipment & Operations	56	25
3) Survey Control	7	7
4) Survey Computation	30	40
5) Office Operations, Plan Reading and Preparation	10	31
6) First Aid and Safety	10	10
7) Principles of the Profession	10	7
Total Questions	130	130



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LEVEL III EXAM

- 7000 hours, or 3.5 years total of surveying experience required
 - Field Track: 3000 hours (1.5 years) Level II experience plus 4000 hours (2.0 years) as a party chief required
 - Office Track: 3000 hours (1.5 years) Level II experience plus 4000 hours (2.0 years) as a chief computer operator required
 - (Up to 1750 hours can be education = 2.33 years, full-time with a minimum of 12 credit hours per term – 56 credit hours)
- The Level III exam has 110 questions
- Four hours allowed for the completion of the exam
- Exam budget 2.18 minutes per question or 27.5 questions per hour



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LEVEL III EXAM

Questions per Examination	Field Boundary	Field Construction	Office Comp Oper
Work Elements			
1) Survey Types and History	5	5	5
2) Field Equipment & Operations	38	49	20
3) Survey Control	5	5	5
4) Survey Computations	16	16	16
5) Office Operations, Plan Reading and Preparation	11	11	40
6) First Aid and Safety	8	8	8
7) Boundary Surveys	15	4	4
8) Principles of the Profession	5	5	5
9) Supervisory Skills	7	7	7
TOTAL QUESTIONS	110	110	110



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LEVEL IV EXAM

- Must hold a Level III certification to take the Level IV exam
- 11,000 hours, or 5.5 years total of surveying experience required.
 - Field Track: 7000 hours (3.5 years) Level II & III experience plus 4000 hours (2.0 years) as a party chief required.
 - Office Track: 7000 hours (3.5 years) Level II & III experience plus 4000 hours (2.0 years) as a chief computer operator required.
 - (Up to 2750 hours can be education = 3.66 years, full-time with a minimum of 12 credit hours per term – 88 credit hours)



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LEVEL IV EXAM

- One Question
- A Formal Technical Report
- Two months to complete and return
- Typed, complete with research and supporting documentation
- Affidavit that the exam was completed by examinee



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TESTING LOCATIONS/DATES

- Currently tests are offered via special test sites across the country and online at arranged test sites with approved Proctors.
- Tests are given four times a year in quarterly cycles.
- It is also possible for college programs and professional organizations to arrange for special testing centers for groups. Special discounts apply to groups of 10 or more.

Visit www.cstnsps.com for current online testing schedule.



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EXAMINATION AND RENEWAL FEES

All Test Levels

- Student/Military
- Individual

Examination Fee

\$120.00
\$180.00

- Annual Certification Renewal Fee - \$40.00
- Required for advancement in the CST Program
- After three years of non-renewal, you **MUST** re-test to become certified again



Prices subject to change.
Check www.cstnsps.com for updates

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EXAMINATION RESULTS

Graded in Four Cycles

- | | Test Results |
|-------------------|-----------------|
| • Cycle 1 (J F M) | end of May |
| • Cycle 2 (A M J) | end of August |
| • Cycle 3 (J A S) | end of October |
| • Cycle 4 (O N D) | end of February |

Online results are given immediately at the completion of the exam



- Normal passing score 70%
- After failure three times, proof of appropriate continuing education required prior to fourth attempt
- Or you can step down one level and re-test

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FOR MORE INFORMATION:



21 Byte Court Suite H, Frederick, MD 21702

Phone: 240-439-4615 • Fax: 240-439-4952

cstinformation@nsps.us.com

cstnsps.com/contact

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