

Development of a Boundary Surveying Concentration in a 100% Online Surveying Engineering Technology Program

Surveying and Geomatics Educators Society

2025 Bi-Annual Conference

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<https://etiquettejulie.com/wp-content/uploads/2019/06/neighbour-voisin-dispute.jpg>

Criteria for Accrediting Engineering Technology Programs, 2025 – 2026

– Surveying/Geomatics Engineering Technology and Similarly Named Programs

Lead Society: National Society of Professional Surveyors

Cooperating Society: American Society of Civil Engineers

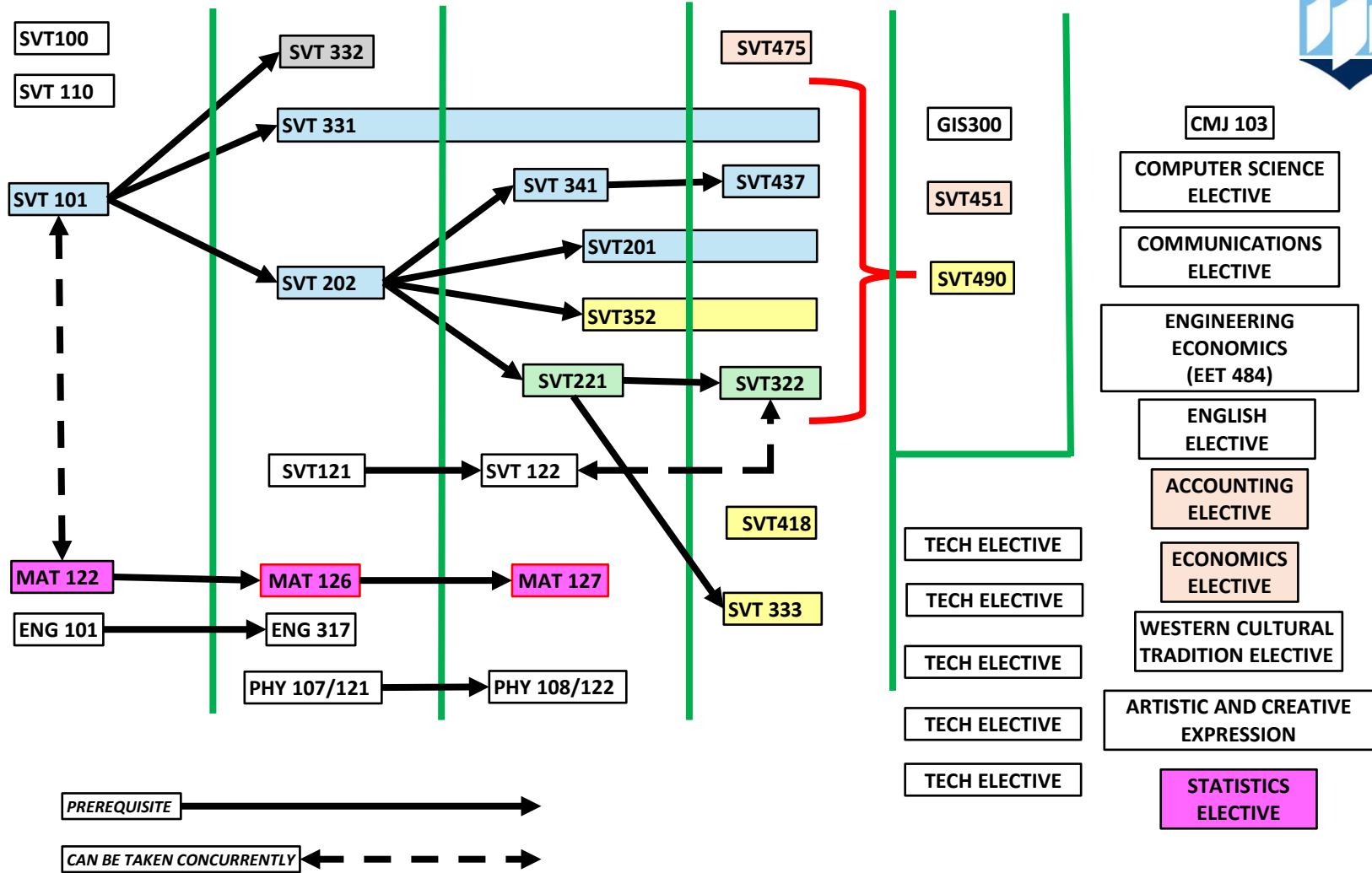
These program criteria apply to surveying engineering technology, geomatics engineering technology or similarly named programs.

II. Program Criteria for Baccalaureate Level Programs

CURRICULUM

The curriculum must prepare baccalaureate degree graduates to become licensed surveyors with the knowledge, techniques and skills in the art and science of surveying/geomatics. Graduates of a baccalaureate degree in surveying/geomatics engineering technology programs possess a strong foundation in geodesy, geodetic science, photogrammetry and remote sensing, professional land surveying, mapping, geospatial data science, and the ability to select modern equipment and techniques to design, construct or locate products through the surveying/geomatics workflow. The curriculum must contain the following topics:

Surveying Engineering Technology Program Prerequisite Flowchart



Proposed Surveying Program Concentrations:

Measurement Science

Surveying Business

Boundary Surveying

Current Courses by Category:

Current **Measurement Science** Courses:

- **SVT 110 Instrumentation and Data Collectors**
- **SVT 101 Basic Surveying Field and Office Processes**
- **SVT 202 Route & Site Surveying**
- **SVT 341 Advanced Surveying (Geodesy)**
- **SVT 331 Photogrammetry**
- **SVT 437 Practical GNSS**
- **SVT 201 Adjustments**

Current **Boundary** Surveying Courses:

SVT 221 Boundary Law

**SVT 322 Preparing Effective
Property Descriptions**

Current Surveying **Business** Courses:

- **SVT 475 Small Business Management**
- **SVT 451 Survey Business Law**
- **Basic Accounting**
- **Micro or Macro Economics**
- **EET 454 Engineering Economics**
- **SVT 332 Engineering for Surveyors**

Measurement Science Concentration:

Current Measurement Science Courses:

- ***SVT 110 Instrumentation and Data Collectors***
- ***SVT 101 Basic Surveying Field and Office Processes***
- ***SVT 202 Route & Site Surveying***

- ***SVT 341 Advanced Surveying (Geodesy)***
- ***SVT 331 Photogrammetry***
- ***SVT 437 Practical GNSS***
- ***SVT 201 Adjustments***

ADD three (3) of these four (4): (Place Holders)

- ***Advanced Photogrammetry?***
- ***Advanced Adjustments?***
- ***Advanced GNSS?***
- ***Construction Surveying (Existing CET course)?***

Ten (10) Courses Total, Seven (7) beyond the foundational, Three (3) beyond required courses. No Technical Electives Used

Surveying Business Concentration:

Current Surveying Business Courses:

- ***SVT 475 Small Business Management***
- ***SVT 451 Survey Business Law***
- ***Basic Accounting***
- ***Micro or Macro Economics***
- ***EET 454 Engineering Economics***
- ***SVT 332 Engineering for Surveyors***

ADD two of these three courses (Place Holders)

- ***Second Economics Course?***
- ***Marketing Professional Services Course?***
- ***Construction Safety (Existing CET course)?***

Eight (8) Courses Total, Four (4) beyond required courses, one (1) technical elective used.

Boundary Surveying Concentration:

Current Boundary Surveying Courses:

- *SVT 221 Boundary Law*
- *SVT 322 Preparing Effective Property Descriptions*

And this is the problem!



What Courses Get Added?

Primary Sources:

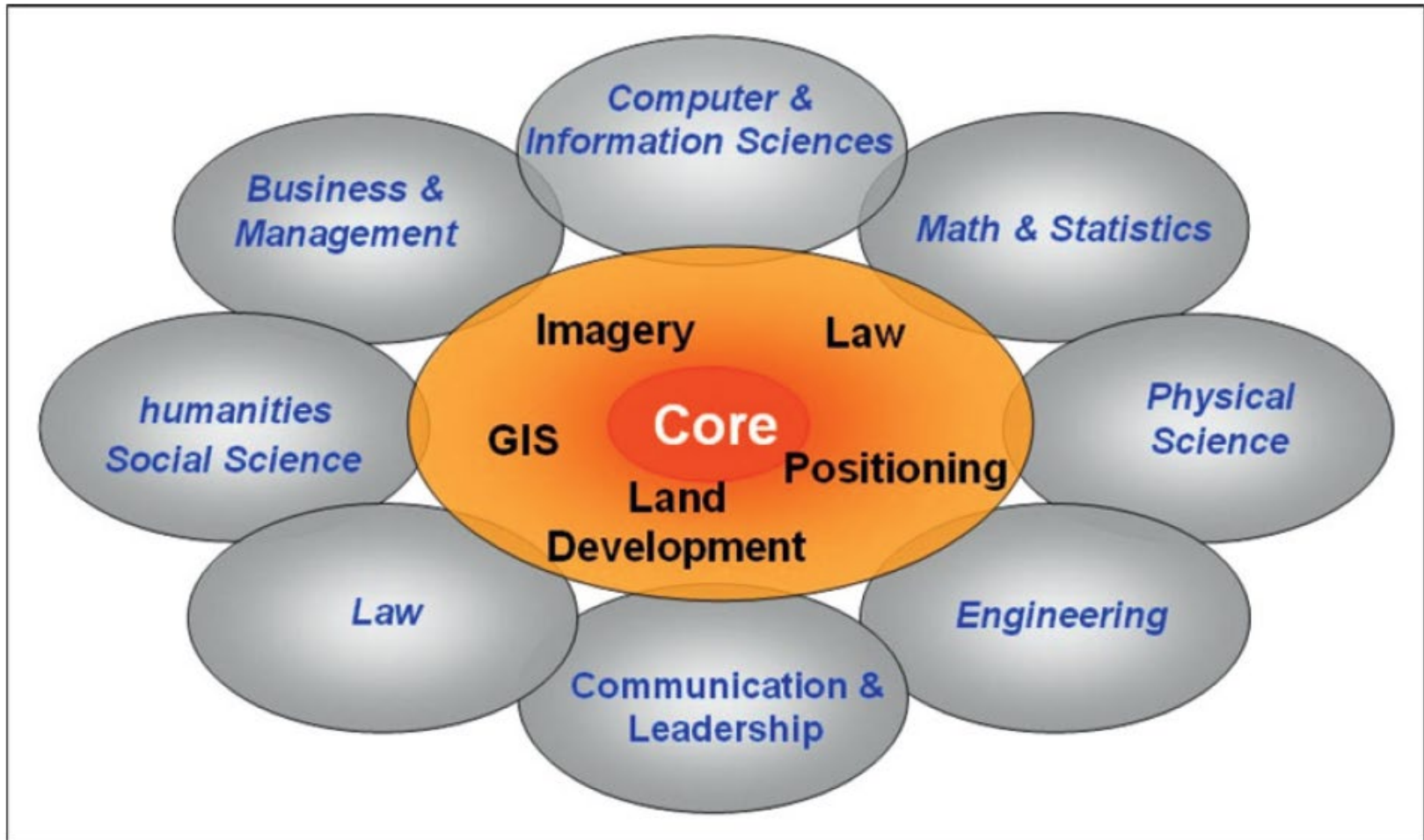
- NSPS Body of Knowledge
- NCEES FS and PS Exam Specifications
- Available FS and PS test materials
- Available Academic Texts

Validating Sources:

- Areas of Boards of Licensure Complaints
- Areas of Boundary Dispute Litigation
- Areas of Professional Development Offerings
- Comments from Program's IAC

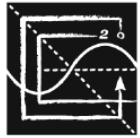
(Iterative)

NSPS Body of Knowledge



Surveying and Land Information Science, Vol. 71, Nos. 3&4, 2011, p. 103 & c.

NCEES FS and PS Exam Specifications



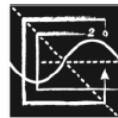
NCEES

*advancing licensure for
engineers and surveyors*

**Fundamentals of Surveying (FS)
FS CBT Exam Specifications**

Effective Beginning with the July 2020 Examinations

<https://ncees.org/exams/fs-exam/>



NCEES

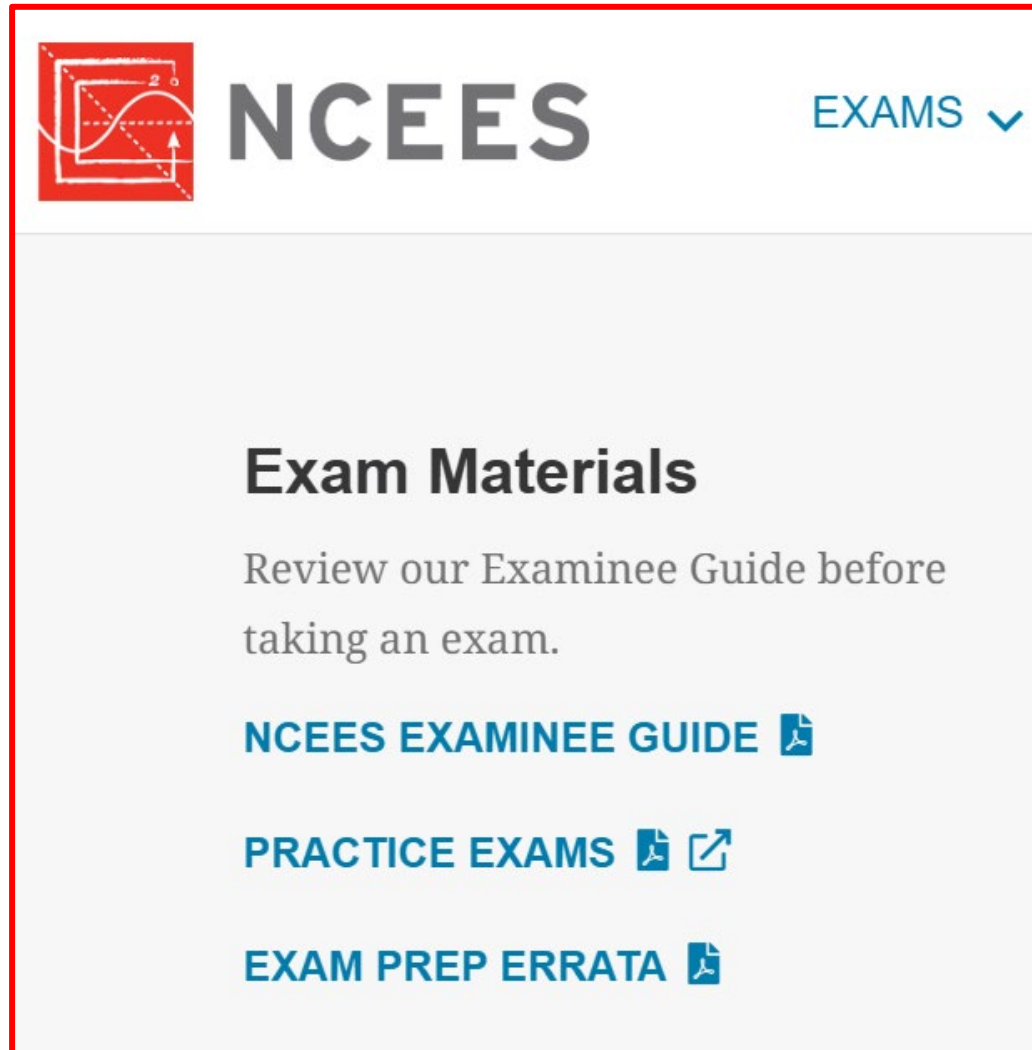
*advancing licensure for
engineers and surveyors*

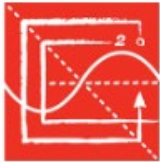
**PRINCIPLES AND PRACTICE OF SURVEYING
CBT Exam Specifications**

Effective beginning January 1, 2019

<https://ncees.org/exams/ps-exam/>


FS and PS Exam Preparation Materials



A screenshot of the NCEES Exams page. The page features the NCEES logo on the left, which includes a red square with a white graph and a sine wave. To the right of the logo is the text "NCEES" in a large, bold, grey font. Further right is the word "EXAMS" in a smaller, blue font with a downward-pointing chevron. Below this header is a light grey section with the heading "Exam Materials" in bold black text. Underneath the heading is a paragraph: "Review our Examinee Guide before taking an exam." Below the paragraph are three links, each in blue text with a PDF icon: "NCEES EXAMINEE GUIDE", "PRACTICE EXAMS" (with an external link icon), and "EXAM PREP ERRATA".


 **NCEES** EXAMS ▾

Exam Materials

Review our Examinee Guide before taking an exam.

[NCEES EXAMINEE GUIDE](#) 

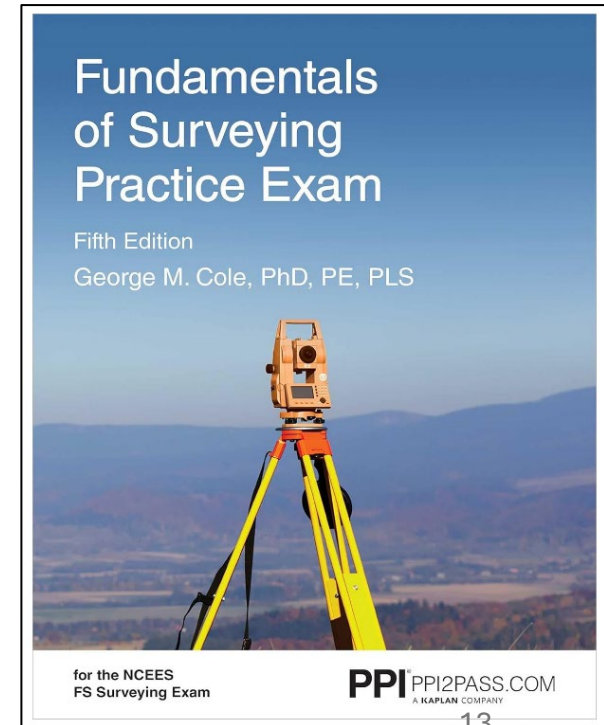
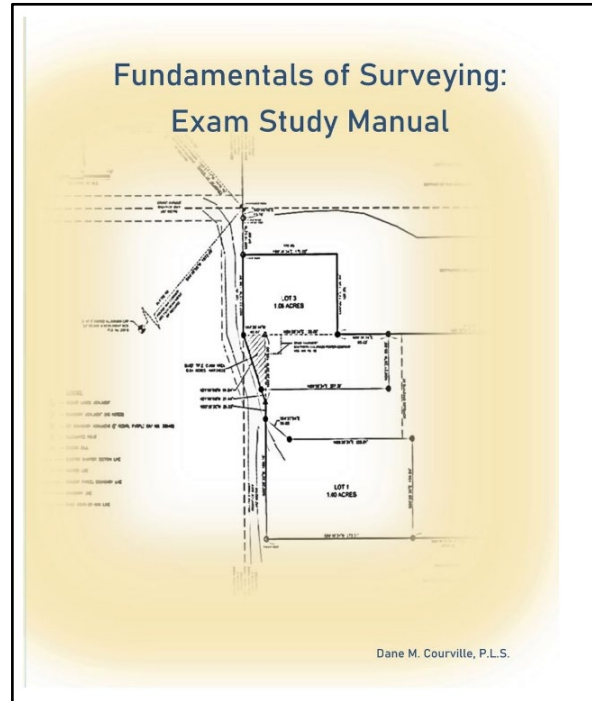
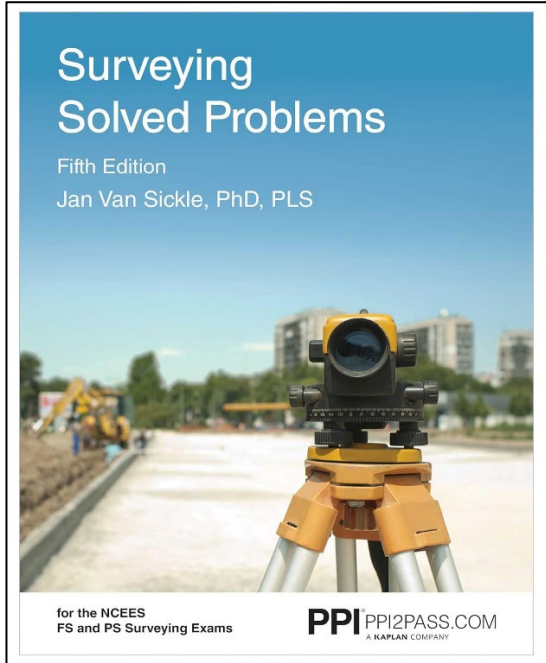
[PRACTICE EXAMS](#)  

[EXAM PREP ERRATA](#) 

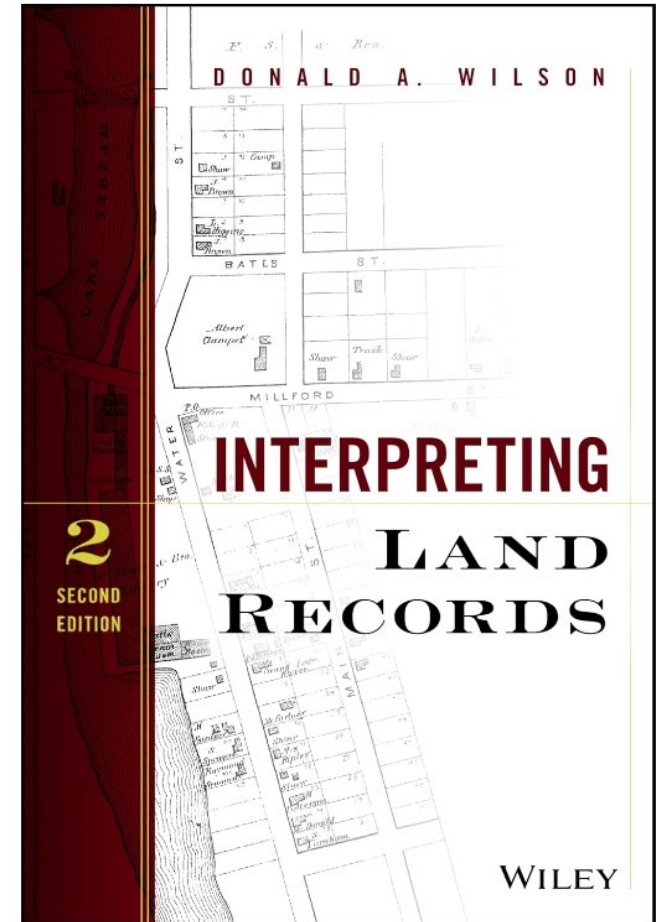
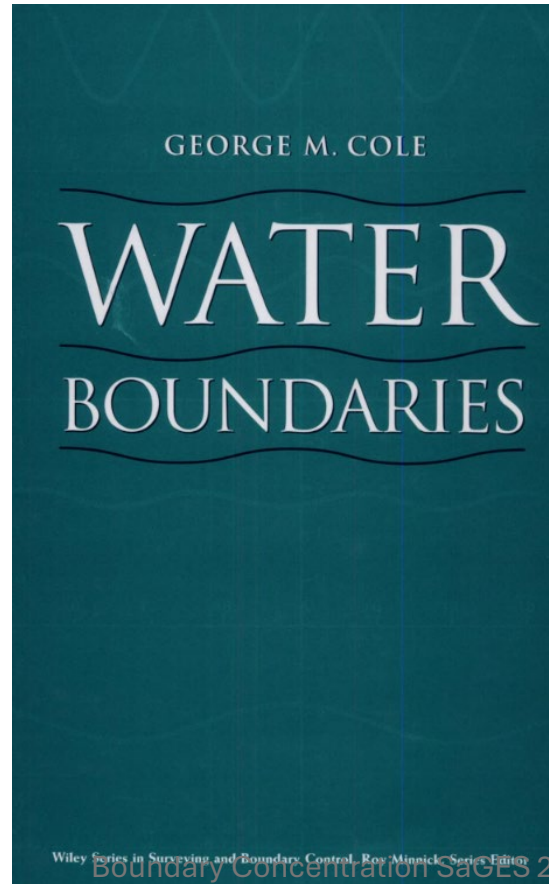
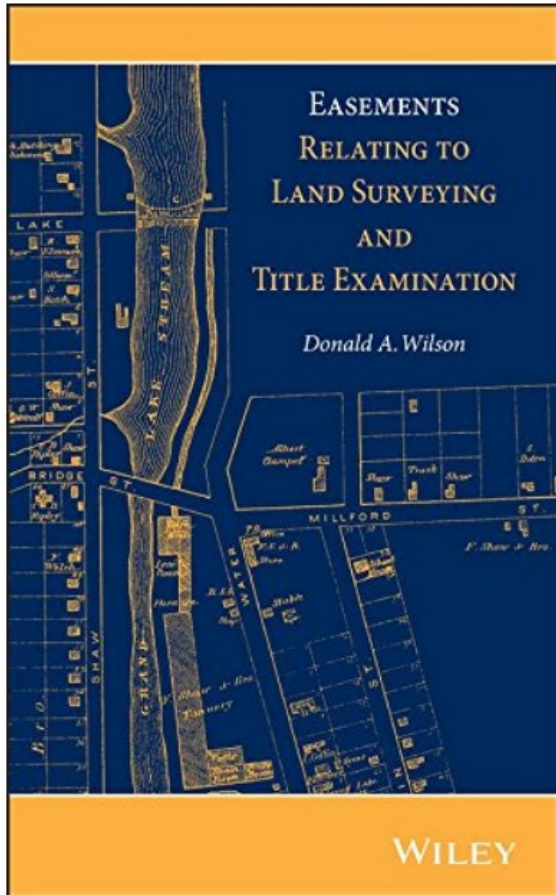
<https://ncees.org/exams/fs-exam/>

<https://ncees.org/exams/ps-exam/>

FS and PS Exam Preparation Materials



Available Academic Texts



Boundary Surveying Concentration:

Current Boundary Surveying Courses:

- ***SVT 221 Boundary Law***
- ***SVT 322 Preparing Effective Property Descriptions***

ADD Seven (7) additional courses.

- ***Surveying Boundaries in the PLSS***
- ***Riparian and Littoral Boundaries***
- ***Unwritten Methods of Boundary Creation***
- ***Practical Analysis of Boundary Evidence***
- ***Advanced Boundary Research***
- ***Easements and Rights of Way***
- ***Alternate Dispute Resolution in Surveying***

Nine (9) Courses Total, seven (7) beyond required courses, ALL five technical electives used.

Practice Based Input

Areas of Boards of Licensure Complaints

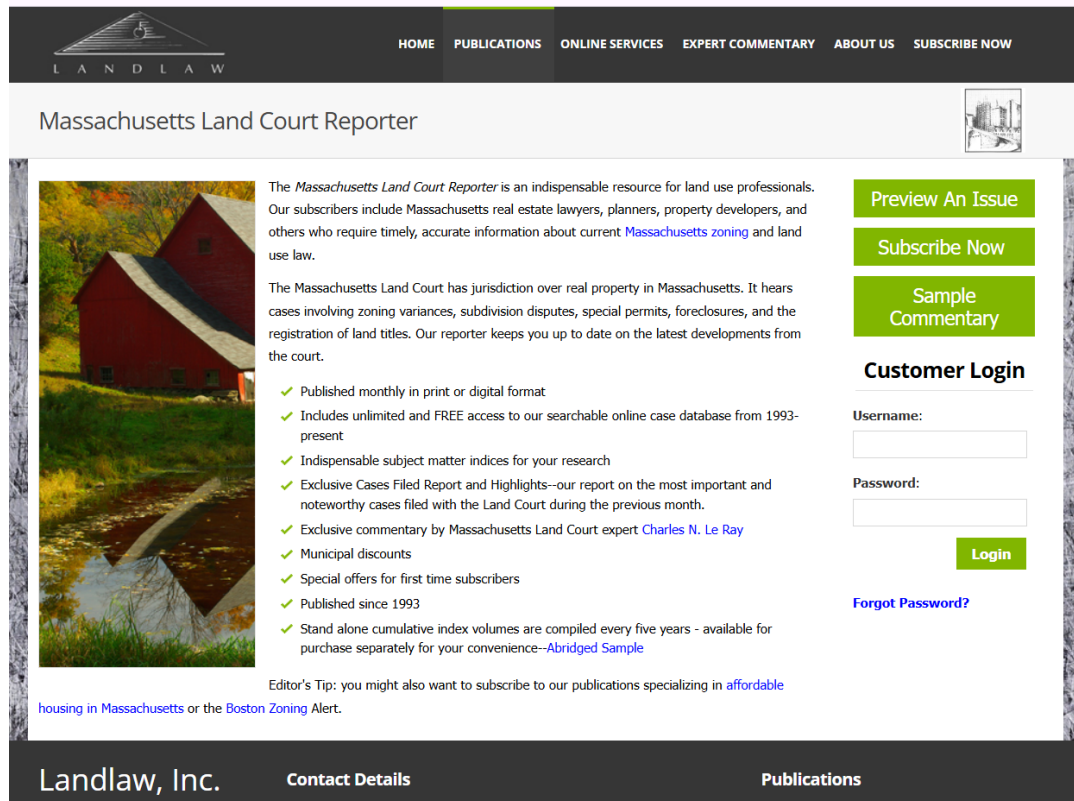


Seek informal comments from current and past board members, in particular, those who have been active in NCEES.

Practice Based Input

Areas of Boundary/Survey Litigation

All decisions of the Massachusetts Land Court (Torrens Title Systems) are indexed and published in *“The Massachusetts Land Court Reporter”*



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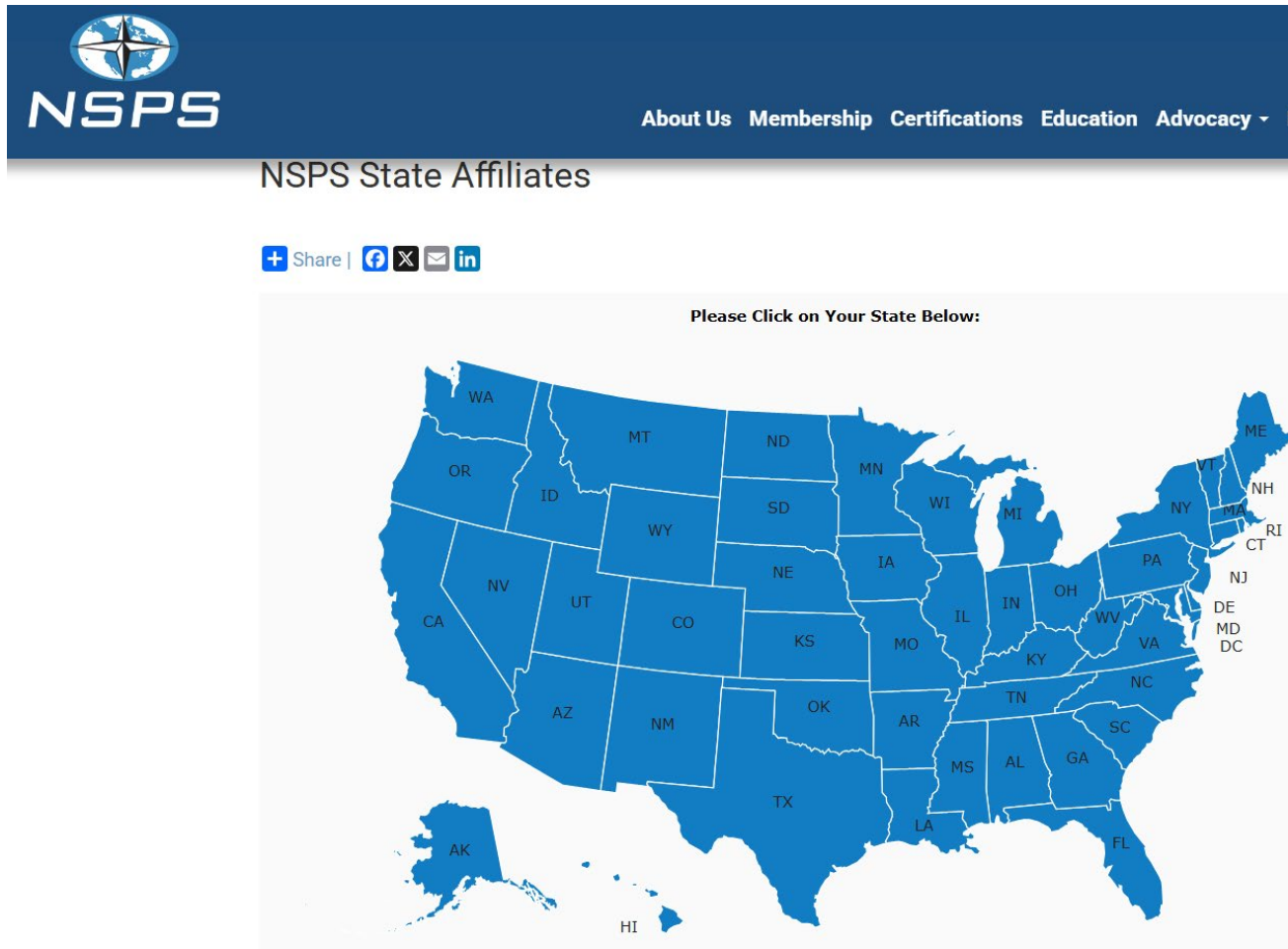
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Practice Based Input

Areas of Professional Development Offerings



The screenshot shows the NSPS website header with the logo and navigation menu. Below the header is the text "NSPS State Affiliates" and social media sharing icons. The main content is a map of the United States with the text "Please Click on Your State Below:" above it. The map shows all 50 states and the District of Columbia, each labeled with its two-letter abbreviation. The states are: WA, OR, CA, NV, UT, AZ, NM, TX, AK, HI, MT, ND, SD, NE, KS, OK, MN, IA, MO, AR, LA, WY, CO, KS, OK, AR, LA, WI, MI, IL, IN, OH, WV, VA, NC, SC, GA, AL, MS, TN, KY, PA, NY, VT, NH, ME, MA, RI, CT, NJ, DE, MD, DC.

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Boundary Concentration SaGES 2025

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Questions