



# Otis A. Jones EDUCATIONAL INSTITUTE

OCT. 4 - OCT. 6, 2023 | MCKIMMON CENTER, RALEIGH, NC

**REGISTER TODAY**

## ABOUT

Established as part of Past-President Otis Jones' presidential goals, the first Institute was held January 5-9, 1987, at the McKimmon Center and had 43 surveyors in attendance. Since 1987, NCSS has continued to provide this educational program, typically offered every two years. The program is designed to provide an in-depth look at important aspects of the surveying profession while also creating a university atmosphere for networking, fellowship, and professional development.

## GRADUATION

To graduate, sections A, B and C of the Institute must be completed (in any order) with a total of 27 hours each. Once all three sections have been completed, the student is awarded a certificate of graduation. Section D does not count towards graduation.

## INSTITUTE SECTIONS

A-Boundary Retracement, B-Business Practices & Survey Application, C-Emerging Issues, and D-Exam Reviews

**LOCATION:** McKimmon Conference & Training Center - 1101 Gorman St, Raleigh, NC 27606

## QUESTIONS?

**Can I participate if I only want to come for one day?**

**YES!** You can register for each day separately. You do not have to attend the full 3-Day Institute.

**Can I participate if I am a graduate of the Institute?**

**Absolutely!** You can register and receive PDHs just like you would for a regular seminar.

## DAILY SCHEDULE

7:30am – 8:00am Sign-In & Breakfast

8:00am – 5:15pm Class (Lunch Included)

## Hotel Information

Holiday Inn Express & Suites, 3741 Thistledown Drive, Raleigh, NC 27606

**Rate:** \$119.00 for reservations made before September 12<sup>th</sup>.

**Make your reservations online [NC Society of Surveyors](https://www.ncsurveyors.org) or by calling 919-854-0001 Ext. 1 (group code BNC)**

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# 2023 Otis A. Jones Educational Institute Course Descriptions

## Section A

**Wednesday** **Topic:** *Case Studies*

**October 4<sup>th</sup>** **Instructor:** Mike Benton

8:00am-12:00pm

This session will examine several real-life cases involving ethics. The participants will experience firsthand the Review Committee process of the Board by discussing the issues and potential violations of those cases. Once the discussion is complete, the participants will be asked to render a judgment based on the evidence presented. We will cover the Board's disciplinary authority and procedures and offer tips on avoiding finding yourself before the Board.

**Wednesday** **Lunch Topic:** *Standards of Practice*

**October 4<sup>th</sup>** **Instructor:** Mike Benton

12:00pm-1:30pm

This session will focus on the Board Rules, specifically Title 21, Chapter 56, Section .1601 to .1609 of the North Carolina Administrative Code (NCAC). These rules are collectively known as the Standards of Practice for Land Surveyors in North Carolina. This session will meet the recent updates stated in 21 NCAC 56.1703, necessitating land surveyors in North Carolina to acquire 1 Professional Development Hour (PDH) each year in the Standards of Practice for Land Surveying.

**Wednesday** **Topic:** *Riparian and Littoral Rights in N.C.*

**October 4<sup>th</sup>** **Instructor:** Steve Coggins, Esq.

1:30pm-5:15pm

This session will look at how riparian/littoral boundaries and rights are different from “inland” boundary & property rights law, the limits on riparian/littoral rights, plat information requirements, estuaries and navigable tidal rivers and streams, and public trust doctrine as applied to interior lakes and ponds.

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**Thursday** **Topic:** *Survey Evidence and Procedures*

**October 5<sup>th</sup>** **Instructor:** Jeff Lucas, Esq., PLS

8:00am-12:00pm

The two fundamental principles of surveying are: (1) the surveyor is an 'original surveyor' laying out new boundary lines in new positions for the very first time, for a common grantor where there is a unity of ownership on both sides of the new lines being created; or (2) the surveyor is a 'retracing surveyor' finding where the property lines have become established on the ground through the application of the appropriate boundary law principles, where there is a diversity of ownership on each side of the line being retraced. In addition to these principles, the determination of any property boundary line is a two-part question: 1. What is the boundary? (The legal title question), and 2. Where is the property located? (The factual location question). The vast majority of boundary surveying work being performed today is retracement surveying as opposed to laying out original subdivision lines, and that work can only be successfully accomplished by understanding the legal question while answering the factual question. This means retracement surveying is an evidentiary exercise, not a math and measurement problem. This program will explore survey evidence and procedures in the retracement context.

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**Thursday** **Lunch Topic:** *NCBEES Update*  
**October 5<sup>th</sup>** **Instructor:** Andrew Ritter  
12:00pm-1:30pm Andrew Ritter will give an update on the state of land surveying in North Carolina.

**Thursday** **Topic:** *Legal Descriptions and Conveyances*  
**October 5<sup>th</sup>** **Instructor:** Jeff Lucas, Esq., PLS  
1:30pm-5:15pm A key component of any conveyance of real property is the interpretation of the deed of conveyance and the description of the property, often referred to as the "legal description." It is often said that when it comes to the interpretation of a deed of conveyance, "intent is king." Nevertheless, the absolute "keys to the kingdom" are ambiguities in the conveyance documents. This presentation examines the law that applies to the conveyance of real property and the interpretation of these conveyances, including ambiguities. Fundamental issues affecting property law will be discussed through court cases and the problem of resolving conflicts in the written instrument.  
(Patent ambiguities) and conflicts between the written instrument and the physical evidence on the ground (latent ambiguities) will be analyzed. Monuments and their role in interpreting legal descriptions will be discussed and studied. Senior/junior rights and so-called "unwritten conveyances" will be studied. Problem legal descriptions and interpretation problems will be discussed in detail. Issues affecting title and the Marketable Record Title Act (MRTA) will be studied. Re-writing wrong legal descriptions, pros and cons will be discussed. Several case studies will be examined on the issues involving the conveyance of real property and involving the property description contained therein. This presentation assumes that participants are familiar with writing legal descriptions; therefore, the fundamentals of writing legal descriptions are only covered in passing. This program will be accompanied by a PowerPoint presentation.

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**Friday** **Topic:** *Expert Witness Testimony*  
**October 6<sup>th</sup>** **Instructor:** Jeff N. Lucas, Esq., PLS  
8:00am-12:00pm The role of the engineer or surveyor as an expert witness will be studied and explored. The basis of this study will be the Federal Rules of Evidence (FRE) and the Federal Rules of Civil Procedures (FRCP). Currently, 42 (or more) of the 50 states have adopted these rules as their own, rendering the Federal Rules highly relevant in any discussion of expert witness testimony. This seminar will go through the basics of a civil lawsuit, from the initial complaint to the discovery process and the trial. The role of the expert as a witness and the testimony that the expert can give under the rules will be explored. Every expert witness must know ten fundamental questions before testifying will be asked and answered. At least four pivotal court cases on the issue of expert witness testimony will be studied and discussed.

**Friday** **Lunch Topic:** *Ethics*  
**October 6<sup>th</sup>** **Instructor:** Dr. Jerry Nave  
12:00pm-1:30pm This session will cover the topics:

- Introduction to Ethics
- Definitions

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- What are “Ethics”?
- Values, Morals, Laws
- How Do Laws and Morals relate?
- Ethical Decision Making
- Professional Ethics

**Friday** **Topic:** *A New Practice Model*

**October 6<sup>th</sup>** **Instructor:** Jeff N. Lucas, Esq., PLS

1:30pm–5:15pm

The land surveying profession has a broken practice model. Simply staking the client's deed and calling it a day is no longer acceptable—not for the profession or the public we are licensed to protect. The fundamental principles of land surveying are that you are an original surveyor setting out new lines for the first time for a common grantor or you are a retracing surveyor whose only duty is to find where the lines have already become established on the ground. If that is true, then where did the practice of "staking the deed" come from? When these new lines made from new measurements are put on the ground in new locations that never existed before, this is neither an original survey nor a retracement survey. How can the land surveying profession affect a paradigm shift from the current broken model of simply finding people's problems to a new practice model where the surveyor doesn't just find the problems but also offers solutions? This seminar will explore how the land surveying profession can structure a new practice model that will allow for better protection of the public, a more lucrative career for the land surveyor, and the survival of the land surveying profession as we know it.

## Section B

**Wednesday** **Topic:** *Taking the Edge Off on Starting Your Own Business*

**October 4<sup>th</sup>** **Instructors:** Tim Guisewhite, PLS & Adam Canoy, PLS

8:00am–12:00pm

This seminar will explore the practical elements of starting a surveying firm. We will delve into the motivations to start your own surveying business, the benefits of being your own boss, and how to define and achieve your personal ambitions. We will examine the basics of:

- Equipment Selection & Software Solutions
- Business Registration with the Secretary of State
- Insurance
- Bank Account & Financial Structure
- The Scariest Question: How Do I Get Clients?
- Simple Website
- Networking
- Resources

**Wednesday** **Lunch Topic:** *Standards of Practice*

**October 4<sup>th</sup>** **Instructor:** Mike Benton

12:00pm–1:30pm

This session will focus on the Board Rules, specifically Title 21, Chapter 56, Section .1601 to .1609 of the North Carolina Administrative Code (NCAC). These rules are collectively known as the Standards of Practice for Land Surveyors in North Carolina. This session will meet the recent updates stated in 21 NCAC 56.1703, necessitating land surveyors in North Carolina to acquire 1 Professional Development Hour (PDH) each year in the Standards of Practice for Land Surveying.

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**Wednesday** **Topic:** *How to Run a Successful Business*

**October 4<sup>th</sup>** **Instructors:** Jim Craddock, PLS

1:30pm–3:30pm In this session, participants will gain a comprehensive understanding of the various challenges associated with ownership. The session will delve into key subjects, including the essence of ownership, strategic business planning, effective recruitment and employee retention strategies, managing ownership transitions, fostering business growth through marketing initiatives, and cultivating strong leadership skills tailored for owners.

**Wednesday** **Topic:** *Tax Tips for Your Surveying Business*

**October 4<sup>th</sup>** **Instructors:** Ryan Nemitz, CPA

3:30pm–5:15pm In this session, Mr. Nemitz will share some tax-saving tips to ensure you understand and fulfill your state and federal tax responsibilities in your surveying business.

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**Thursday** **Topic:** *Finding Success in Your Surveying Business*

**October 5<sup>th</sup>** **Instructors:** Jeff O'Briant, Esq., PLS

8:00am–12:00pm We will address and discuss several topics to assist you in being successful in your business. Specifically, we will talk about critical leadership areas for you personally and your firm. Similarly, we will talk about generational differences, how they will likely impact you and the surveying industry in the coming years, and how you can prepare for the opportunities they might bring. Coupled with developing leadership and being prepared for changes, we will discuss "How to Avoid Malpractice." In between these planning and business concepts, we will also discuss title research and evaluate areas that might trip up the expert or the beginner.

**Thursday** **Lunch Topic:** *NCBEES Update*

**October 5<sup>th</sup>** **Instructor:** Andrew Ritter

12:00pm–1:30pm Andrew Ritter will give an update on the state of land surveying in North Carolina.

**Thursday** **Topic:** *Insuring & Contracting to Protect Your Small Business*

**October 5<sup>th</sup>** **Instructor:** Jeff Todd

1:30pm–3:30pm After completing this program, attendees will better understand how professional liability insurance works and how insurable contract terms can help manage a firm's risk exposure. We will analyze an actual claim and will discuss the facts of the case and what the firm could have done differently to prevent the claim and reduce exposure.

**Thursday** **Topic:** *The Business of Healthcare: What Small Group Employers Should Know About Selecting Health Insurance for Their Employees*

**October 5<sup>th</sup>** **Instructor:** Hadiya Swann

The purpose of this presentation is to provide a full understanding of Small Group Health Insurance in accordance with our State and Federal Laws. The healthcare information provided during this presentation will ensure business owners are equipped with the tools and resources required to make well-informed choices for their business's healthcare needs.

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## Key Topics Discussed in this Presentation

- Eligibility
- ACA and Small Groups
- Minimum Value and Affordability
- State and Federal Regulation
- HIPAA Privacy Rule
- Association Health Plan Rule
- Coverage Options
- SHOP Marketplace
- State Continuation

## Main Presentation

- Review Legal Definition of Small Business.
  - Discussion ACA mandates and Small Business.
  - The presentation will focus on Small Business and Health Care Reform
    - Affordability – The true cost of healthcare and reasons behind the rising cost.
    - Coverage Options – Different Types of coverage – Assessing our needs
    - Shopping for Insurance – Marketplace SHOP – Independent Agents
  - Association Health Plans Rule – What does it mean for North Carolinians?
  - Q&A - Resources
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**Friday** **Topic:** *The Pragmatic Manager*

**October 6<sup>th</sup>** **Instructor:** Chris Barron

**8:00am-10:00am** This course offers a comprehensive understanding of various continuous improvement methodologies, such as Poke Yoke, Kaizen, 5S, and Six Sigma, applied in business contexts. Participants will learn how to implement these improvement approaches effectively to optimize processes and drive positive changes within their surveying business.

**Friday** **Topic:** *Increasing Productivity Through Written Communication*

**October 6<sup>th</sup>** **Instructor:** Christy Davis

**10:00am-12:00pm** This two-hour workshop will focus on enhancing productivity through improved written business communications. This session aims to explore techniques for enhancing skills in conveying information, giving instructions, exerting influence, and sparking inspiration. Surveyors will receive valuable tips, helpful prompts, and important precautions, all designed to support them in achieving clearer and more effective communication with both colleagues and clients.

**Friday** **Lunch Topic:** *Ethics*

**October 6<sup>th</sup>** **Instructor:** Dr. Jerry Nave

**12:00pm-1:30pm** This session will cover the topics:

- Introduction to Ethics
- Definitions
- What are “Ethics”?

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- Values, Morals, Laws
- How Do Laws and Morals relate?
- Ethical Decision Making
- Professional Ethics

**Friday** **Topic:** *Leadership & Extreme Ownership*

**October 6<sup>th</sup>** **Instructor:** Chris Barron

1:30pm - 3:30pm

The Leadership and Extreme Ownership course explores practical leadership principles inspired by Jocko Willink and Leif Babin's "Extreme Ownership." Participants will learn how to apply these concepts to their surveying business, emphasizing personal accountability and teamwork. Through real-life case studies and interactive exercises, attendees will gain practical insights to strategically lead their surveying teams and achieve successful project outcomes.

**Friday** **Topic:** *"Cybersecurity in 2023: Active Threats & Misconceptions"*

**October 6<sup>th</sup>** **Instructor:** Jason Galasso

3:30pm-5:15pm

In an increasingly digital and interconnected world, the importance of cybersecurity cannot be overstated. This security session is designed to empower participants with the knowledge and tools necessary to protect themselves, their families, and their digital assets from a wide range of increasing threats.

Topics include:

- Hidden Dangers of Public Wi-Fi
- Open Source Intelligence (OSINT) & Capabilities
- The Dark Web
- Rogue, Malicious & Shortened URL's
- Facebook Security
- Personal Email and Browser privacy
- Monitoring Personal Information for Data Breaches
- Are Password Managers Safe?
- Malicious Ads
- Artificial Intelligence (AI) & Social Engineering

## Section C

**Wednesday** **Topic:** *Component-Level Technology in Total Stations and GPS...*

**October 4<sup>th</sup>** **Instructors:** Charles "Bucky" Lawley

8:00am-10:00pm

Advancements in technology have significantly impacted every aspect of surveying businesses. We know things are getting better, faster, and stronger....but why? In this session, we will discuss the component-level technologies in total stations and GNSS that help to make us more productive and efficient.

**Wednesday** **Topic:** *Monitoring 101 - Monitoring Business Opportunities for Surveyors*

**October 4<sup>th</sup>** **Instructor:** Joe Priestner

10:00am-12:00pm

Surveyors are often asked to monitor the position or elevation of points at a project site, returning periodically to remeasure the points and provide a report of any changes to their client. But what

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happens when the project requires round-the-clock automated monitoring or the use of sensors not typically found in a surveyor's toolbox? In these cases, the work will often go to a consulting firm that specializes in monitoring. This presentation will highlight how surveyors can increase their monitoring capability, add additional monitoring services to their business, and capture a larger portion of the work on large-scale monitoring projects. The session will begin with some specific examples of how the presenter added advanced monitoring services to his own surveying business. Next, monitoring best practices will be discussed for both manual and automated monitoring systems. The session will finish up with an overview of other non-surveying monitoring sensors focusing on how they operate, their benefits, and their limitations. After attending this presentation, you will be better prepared to take on your next monitoring project.

**Wednesday** **Lunch Topic:** *Standards of Practice*

**October 4<sup>th</sup>** **Instructor:** Mike Benton

12:00pm–1:30pm This session will focus on the Board Rules, specifically Title 21, Chapter 56, Section .1601 to .1609 of the North Carolina Administrative Code (NCAC). These rules are collectively known as the Standards of Practice for Land Surveyors in North Carolina. This session will meet the recent updates stated in 21 NCAC 56.1703, necessitating land surveyors in North Carolina to acquire 1 Professional Development Hour (PDH) each year in the Standards of Practice for Land Surveying.

**Wednesday** **Topic:** *An Overview of SUE for Land Surveyors*

**October 4<sup>th</sup>** **Instructors:** Dale McGowan

1:30pm–5:15pm This course will cover the history and development of Subsurface Utility Engineering (SUE) services in relation to engineering and land surveying projects. Historical and new standards, technologies, and applications will be discussed. Typical and appropriate applications to a variety of project types will be covered. SUE Quality Levels will be reviewed in detail, and a comparison between SUE services and the 811 system will be presented.

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**Thursday** **Topic:** *NCDOT Location & Survey – ORD Software Workshop*

**October 5<sup>th</sup>** **Prerequisites**

8:00am–12:00pm

- Laptop with ORD version 10.12 installed
- Current NCDOT Workspace installed
- Sample Data installed

**Instructor:** Emory Kincaid & Timothy VanGelder

Covered Topics will include:

- Overview of ORD software
- Workset/File Creation
- Processing closed traverse with adjustment
- Processing topographic survey data
- ATLAS data & Geometry builder
- Civil Labeler & Element annotation
- Terrain Models
- R/W Computations
- Control & R/W Sheets
- Various Reports

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**Thursday** **Lunch Topic: NCBEES Update**  
**October 5th** **Instructor:** Andrew Ritter  
12:00pm-1:30pm Andrew Ritter will give an update on the state of land surveying in North Carolina.

**Thursday** **Topic: Hydrographic Surveying**  
**October 5<sup>th</sup>** **Instructor:** Jefferson Canoy  
1:30pm-5:15pm This course will introduce participants to hydrographic surveying by discussing basic procedures for quality control, data collection, and data processing for high-frequency single-beam bathymetric surveys. Attendees will learn how to conduct surveys per the standards and practices established by the NSPS and USACE.

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**Friday** **Topic: UAS Basics - Photogrammetry and LiDAR in Parallel**  
**October 6<sup>th</sup>** **Instructors:** Seth Swaim & Richie Tarby  
8:00am-10:00am This session will cover:

- General UAS information, rules, types of equipment
- UAS platforms and payloads
- Uses, including uses other than surveying.
- Workflow and project examples
- Costs, cost concerns, savings?
- Advantages/Disadvantages
- What could possibly go wrong?

**Friday** **Topic: Cost Benefit Analysis – Should I start (or expand) my USAS program?**  
**October 6<sup>th</sup>** **Instructor:** Chris Breedlove  
10:00am-12:00pm This session will serve to help those seeking to add unmanned aerial solutions to their practice or those considering expanding their existing program. Attendees will learn what to look for when evaluating UAS solutions, including key terms to be aware of; understand the myriad factors that go into building out a UAS program, touching on labor, workflow, scalability, and emerging technological and regulatory issues; and concluding with examples of how various customers are using UAS currently as part of their business. Examples referenced will represent a variety of UAS solutions and users ranging from sole proprietors on up to much larger firms.

**Friday** **Lunch Topic: Ethics**  
**October 6<sup>th</sup>** **Instructor:** Dr. Jerry Nave  
12:00pm-1:30pm This session will cover the topics:

- Introduction to Ethics
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- Friday** **Topic:** *A Day (Or Two) in The Life of a UAS Surveying Crew*
- October 6<sup>th</sup>** **Instructor:** H. Andrew Lassiter
- 1:30pm-5:15pm This presentation touches on each of the topics below to give a high-altitude overview of the life cycle of a UAS surveying project. Topics include:
- Mission planning
  - The crew: roles, management, safety
  - Best practices for UAS data acquisition
  - Accuracy assessment of UAS lidar/photogrammetry products
  - ASPRS positional accuracy standards
  - Lidar and photo point cloud processing
  - Project metadata

## Section D

**Wednesday** **Topic:** *PS Exam Review*

**October 4<sup>th</sup>** **Instructors:** Peggy Fersner & Dr. Jerry Nave

8:00am-5:15pm This will serve as a review for those who are preparing to take the "Principles and Practice of Surveying" exam. Instructors will not be able to cover all topics on the exam but will cover the highlights. Go to <https://account.ncees.org/exam-prep/360> to purchase a practice exam from NCEES.

Covered topics will include:

- Technical Surveying Methods and Practice:
  - GNSS – VRS (RTK) and Static
  - North Carolina State Plane Coordinate System
  - Solar and Polaris Observations
- Board Rules:
  - General Statute of North Carolina Chapter 89C
  - NCAC Chapter 56
- Statutes:
  - NC General Statutes regarding boundary and easements
  - NC General Statutes regarding Subdivision Development
  - Mini Brooks
- Law:
  - Riparian/Littoral Rights
  - Boundary Relocation
- Principles of Open Channel Flow:
  - Computations of hydraulic radius and depth
  - Sizing of channels
  - Sizing of circular conduits (pipes) flowing full and partially full
- Computations of Travel Times:
  - Sheet, concentrated, and pipe flow
- Peak Flow Computations:
  - NRCS - SCS Peak Flow
  - Rational Peak Flow

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- Storm Sewer Design
- Culverts
- Detention Volume Estimates
- Horizontal and Vertical Curve Design
- Overview of the Erosion Control Manual
- Overview of the NC DENR BMP Manual

**Wednesday** **Lunch Topic: *Standards of Practice***

**October 4<sup>th</sup>** **Instructor:** Mike Benton

12:00pm-1:30pm This session will focus on the Board Rules, specifically Title 21, Chapter 56, Section .1601 to .1609 of the North Carolina Administrative Code (NCAC). These rules are collectively known as the Standards of Practice for Land Surveyors in North Carolina. This session will meet the recent updates stated in 21 NCAC 56.1703, necessitating land surveyors in North Carolina to acquire 1 Professional Development Hour (PDH) each year in the Standards of Practice for Land Surveying.

**Thursday** **Topic:** *FS Exam Review Part 1*

**October 5<sup>th</sup>** **Instructor:** Nathan Xiques

8:00am-5:15pm This class will serve as a review for those who are preparing to sit for the "Fundamentals of Surveying" exam. Instructor will not be able to cover all topics on the exam but will cover the highlights.

Covered topics will include:

- Basic Surveying Math: Statistics and Random Errors in Surveying, Standard Deviation and Mean (HP35s)
- GPS & Positional Accuracies
- NC State Plane Coordinate System
- COGO
- Aerial Mapping / Photogrammetry
- Celestial Observations
- PLSS

**Thursday** **Topic:** *NCBEES Update*

**October 5<sup>th</sup>** **Instructor:** Andrew Ritter

12:00pm-1:30pm Andrew Ritter will give an update on the state of land surveying in North Carolina.

**Friday** **Topic:** *FS Exam Review Part 2*

**October 6<sup>th</sup>** **Instructor:** Jared Ownbey

8:00am-5:15pm This class will serve as a review for those who are preparing to sit for the "Fundamentals of Surveying" exam. Instructor will not be able to cover all topics on the exam but will cover the highlights.

Covered topics will include:

- Exam Taking Strategies
- Taping & Corrections

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- Basic Leveling
  - Traverse Closure and Adjustment
  - Boundary Law
  - Magnetic Declination
  - Business Concepts
  - Horizontal Curves and Equations
  - Vertical Curves and Equations

**Friday** Lunch Topic: *Ethics*

**October 6<sup>th</sup>** Instructor: Dr. Jerry Nave

12:00pm-1:30pm This session will cover the topics:

- Introduction to Ethics
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## Instructors

### **Chris Barron, CCFM**

*Chris has a history of effective management across diverse environments. With experience ranging from being a US Navy nuclear reactor operator to supervising critical departments at GlaxoSmithKline, Chris has honed operations, compliance, training, and leadership skills. As a Six Sigma Professional for Johnson Controls, he helped multiple accounts optimize processes for better outcomes. Chris has also made significant contributions as the Director of Education and Executive Director for the National Association of Church Facilities Managers, where he played a pivotal role in developing educational programs and providing strategic leadership. In his current position as Facilities and IT Manager at Faith Youngsville, Chris adeptly juggles daily tasks with overarching objectives while fostering personnel growth. His educational foundation includes degrees in Business Administration and Nuclear Engineering, underscoring his multifaceted expertise.*

### **Richard M. (Mike) Benton, PLS**

*Mike was born and raised in Goldsboro, NC. He graduated from Eastern Wayne High School in 1976 and attended the college transfer program at Wayne Community College from 1976-1978. He graduated from Coastal Carolina Community College with an AAS degree in Surveying Technology in 1982. In 1991, after living and working several years in Greenville, NC, Mike moved back home to Goldsboro and established Benton & Associates Land Surveying and Mapping, PA. Mike has been an active member of the North Carolina Society of Surveyors (NCSS) since 1991, serving as the chairman of the Formal Education Committee from 1993-2000, President of NCSS in 2003, and the North Carolina Delegate to the Board of Governors for the National Society of Professional Surveyors from 2008-2013. On November 06, 2012, Mike was appointed by Governor Beverly Perdue to serve on the Board of Examiners for Engineers and Surveyors.*

### **Chris Breedlove, GSIP**

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*Chris is a Mobile Mapping Business Development Representative at Duncan-Parnell, where he focuses on Trimble mobile mapping solutions along with UAV lidar and photogrammetric solutions from DJI, Wingtra, Quantum Systems, YellowScan, Inspired Flight, and others. Chris has a Bachelor of Arts degree from the University of North Carolina at Chapel Hill in Geography with a minor in urban planning, and an Associate in Applied Science degree from Central Piedmont Community College in Horticultural Technology.*

### **Adam Canoy, PLS PSM**

*Adam received his Bachelor of Science in Mathematics from Lees-McRae College and his Bachelor of Science in Geomatics from NC A&T University. He has progressed from a Field Engineer at Great Lakes Dredge and Dock to Owning his own surveying business in January 2019. Having worked in various aspects of the Geomatics field both domestically and abroad, he has gained diverse work experiences that have allowed him to broaden his technical experience with various geomatics technologies. As an out-of-the-box problem solver, Adam welcomes the challenges a complex job might require. He and his wife, Summer, have 2 children, Zann and Dax.*

### **Steve Coggins, ESQ**

*Attorney at law concentrates his practice on civil litigation and regulatory matters, focusing on complex coastal business and property issues. His litigation experience includes representing clients in a wide array of dispute resolution venues, including jury and bench trials in state and federal courts, administrative and quasi-judicial proceedings, arbitration, and mediation. He is also certified by the N.C. Dispute Resolution Commission to conduct Mediated Settlement Conferences in Superior Court Civil Actions.*

*Mr. Coggins represents clients dealing with a myriad of municipal, state, and federal laws concerning coastal management, development, business associations and contracts, property, infrastructure, environmental, transportation, eminent domain, and insurance coverage issues. He deals directly with officials at all levels of government in many contexts.*

*In addition to individuals and private development clients, he has served as Town Attorney for two beach municipalities, which work also includes advocating legislation in the North Carolina General Assembly and United States Congress.*

*Prior to joining Rountree Losee in 2002, Mr. Coggins practiced law in Raleigh, NC for 25 years. Formerly a partner with Parker, Poe, Adams & Bernstein, L.L.P., he began his career as a law clerk for the Honorable F. T. Dupree, Jr., Chief Judge for the United States District Court for the Eastern District of North Carolina.*

### **Jim Craddock, PLS**

*As President of CESI, Jim oversees the activities of 50 professional and technical personnel. He joined CESI in 1986, and today he is responsible for leading the firm and focusing on corporate operations, client relationships, employee engagement, and business development.*

*Jim is a Professional Land Surveyor in 5 eastern states and brings over 45 years of experience to our team. He has been elected by the membership of the North Carolina Society of Surveyors (NCSS) as our state's delegate to the National Society of Professional Surveyors (NSPS). He is an active member of Cabarrus Rotary and serves on the Cabarrus Regional Chamber of Commerce Board of Directors.*

### **Christy Davis**

*Christy Davis graduated from the University of North Carolina-Chapel Hill with a bachelor's degree in psychology. After college, she worked in property management in Atlanta, Georgia. Her experience led her to the marketing firm*

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*Paget Enterprises, where she utilized her insights into psychology to present seminars to leasing agents and managers, focusing on the art of "closing the sale." During her years of raising a family, Christy developed and taught courses in American and British literature. She shared her expertise through homeschool co-ops and private school settings, enriching the education of students with her passion for literature. Christy served as the Executive Director for the North Carolina Society of Surveyors from 2011-2023. Her tenure in this role allowed her numerous opportunities to practice and refine her clear and concise business communication skills.*

### **Peggy Fersner**

*Peggy Fersner was the Geomatics Coordinator at North Carolina A&T State University from 1993-2022, teaching surveying, GIS, and hydrology courses. She retired from NC A&T in 2022 but still teaches online courses. Prior to this, she was a consulting engineer in Charleston, SC, with an emphasis on subdivision design. She holds her BS and MS degrees in Civil Engineering from Virginia Tech and Clemson University, respectively.*

### **Jason Galasso, CISSP**

*Jason is a Cybersecurity Professional who has been involved in IT/Cybersecurity since 1997. He is passionate about privacy & security and is focused on helping others learn about protecting themselves and their data from the ever-growing list of risks. Jason is an active CISSP (Certified Information Systems Security Professional) and also holds the GIAC Critical Controls Certification (GCCC) certification.*

*Based in Denver, Colorado (Yes, his blood is orange & blue), Jason speaks to Schools, Businesses & Churches around the nation about numerous Cybersecurity topics. He has been married for almost 25 years and has two adult children who are his driving force for educating others on Cybersecurity.*

### **Timothy S. Guisewhite, PLS**

*Timothy owns Guisewhite Professional Land Surveying, PC, in Lincoln County, North Carolina. His passion lies in historical surveying methods and equipment and how to communicate the application of this knowledge to the next generation of surveyors. Over the years, Tim has had the privilege to survey nine original thirteen colonial states. He is licensed in North Carolina, South Carolina, Virginia, and Pennsylvania. He currently serves as Vice President of the North Carolina Society of Surveyors. Tim is a member of the North Carolina Society of Surveyors, the National Society of Professional Surveyors, the Surveyors Historical Society & the Sons of the American Revolution.*

### **Emory Kinkaid, PLS**

*Mr. Keane is the surveying and subsurface utility location manager responsible for subsurface utility location projects company-wide and survey projects within the Piedmont area of North Carolina for ESP Associates, P.A. Mr. Keane has performed subsurface utility location services for more than ten years and has been surveying for over 15 years. Mr. Keane has surveying experience ranging from small boundary surveys to large-scale land development projects and roadway improvement design surveys to utility locations at airports and plant facilities. His duties include department management and administration, marketing, business development, field crew personnel supervision and training, quality control, and quality assurance.*

### **H. Andrew Lassiter**

*Andrew is an assistant professor of geomatics at North Carolina A&T. I recently joined A&T from Oregon State University, where I was an instructor with the geomatics engineering group. Before that, I was a postdoctoral researcher in the Geospatial Mapping and Applications Laboratory at the University of Florida, where I researched*

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*UAS lidar and photogrammetry for coastal ecosystems, forestry, and the built environment. I received a PhD in geomatics in 2018 and a BS in geomatics in 2014, both from UF. Before attending UF I worked as a survey technician in both the public and private sectors.*

### **Charles W. (Bucky) Lawley III**

*Charles W. Lawley III (Bucky) is a 2003 North Carolina State University graduate with over 20 years of experience in Instrumental Repairs and Technical Sales and Support through Transit and Level Clinic, a family-owned business with locations throughout North Carolina. With instrument repair as the focus of the business, Charles has received factory service training and high-level technical support training from all five of the major equipment/software manufacturers. Instructional topics include Survey Pro Training, Carlson SurvCE Training, Leica Captive Training, Basic Total Station Use, Basic High-Definition Scanning Use, Surveying with Drones, Equipment Maintenance and Calibration, Understanding Accuracy and Precision in Surveying, and other Business topics.*

### **Jeff N. Lucas, Esq., PLS**

*Jeffery N. Lucas started his career as a land surveyor and is a licensed surveyor in Alabama, Florida, Georgia, Mississippi, and Tennessee. Lucas is a recognized expert in boundary surveying, land title surveys, and property law. He obtained his first land surveying license in Florida (1984), where he spent the first part of his surveying career. After relocating to Alabama, he has practiced across five southeastern states.*

*Lucas attended and graduated from law school later in his career. He is also a licensed attorney and member of the Alabama State Bar (2003). His practice is focused on land boundary issues and real property law, including adverse possession, boundary disputes, professional liability, real property, and zoning and land use issues. He has been an expert witness and consultant in many cases involving land surveying and boundary disputes.*

*As a result of his experience and background, Lucas is also a continuing education seminar leader on surveying and legal topics. He has developed a library of over 40 titles and conducts continuing education seminars for land surveyors, engineers, and attorneys all across the country. In addition, he has authored over 100 articles on surveying, boundary, and legal issues that have been published in state and national professional journals. He has a regular legal column in P.O.B. magazine and has been writing for the magazine since 2004. Lucas has also authored three books on land surveying and boundary law: "Alabama Boundary Law" (2009), "The Pincushion Effect, The Multiple Monument Dilemma in American Land Surveying" (2011), and "Illinois Boundary Law" (2012). Lucas is currently the Alabama Survey Division Manager for ESP Associates AL, Inc.*

### **Dale McGowan, PLS**

*Dale holds a Bachelor of Science in Geomatics from NC A&T State University and an Applied Associate of Science in Surveying Technology from Wake Technical Community College. With a background in Preliminary Engineering Design Surveys, Subsurface Utility Engineering (S.U.E), and the operation and maintenance of public utilities, he brings a deep understanding of the importance of providing accurate base mapping and utility information for design and construction projects. At McAdams, Dale manages assigned Preliminary Engineering Design Surveys, Subsurface Utility Engineering, and is the UAS Project Manager/Geomatics Project Manager. He and his wife, Frani, decided to make North Carolina home after Dale's service in the US Marine Corps.*

### **Dr. Jerry Nave, PLS**

*Jerry graduated from East Tennessee State University in 1986 with a bachelor's degree in Survey and Mapping Science.*

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*He later completed a master's degree in 1999 and his Doctorate Degree in 2005, both from East Tennessee State University. After graduating in 1986, he worked for Dewberry and Davis for six years in Fairfax, Virginia and Johnson City, Tennessee. In 1992, he went to work for the City of Johnson City, and in 1993 he moved to the City of Kingsport as Land Surveyor for the Engineering Department. He later started a small land surveying firm in Elizabethton before joining the faculty at East Tennessee State University's Surveying and Mapping Science Program. In 2007, Dr. Nave moved to Greensboro, NC to help start the Geomatics Program. Dr. Nave has served as the President of the Guilford Chapter (2015-2019), the NCSS Executive Board of Directors (2017-Present) and has served on a number of committees for the Society. In addition to his university duties, Dr. Nave teaches seminars related to boundaries, GNSS, UAS, and ethics to the surveyors of North Carolina. Dr. Nave is licensed as a PLS in both Tennessee (1993) and North Carolina (2015) and has his FAA UAS certificate (2018-Present).*

### **Ryan Nemitz, CPA**

*Mr. Nemitz, a CPA, holds a B.S of Accounting from Appalachian State University and is a partner at Mitchell & Nemitz, PA. His daily duties include new business start-up consultations, tax preparation and planning, QuickBooks consulting, and conducting audits for for-profit and not-for-profit. Ryan specializes in trust and estate tax planning and residential and commercial construction accounting. Ryan is an active member of AICPA, NCACPA and is a coach with the Homeschool Football League. When Ryan is not in the office working or serving the Homeschool Football League, he enjoys spending time with his family, playing sports, Fantasy football, and actively serving in his church and surrounding community.*

### **Jeff O'Briant, Esq., PE, PLS**

*Jeff has surveyed through swamps, turned angles in 100-degree North Carolina heat, and cut miles off the survey line like you. After attending Wake Tech and UNC Charlotte in Civil Engineering to become a highway design engineer and route surveyor with the NCDOT, he gained experience in his PE and PLS. Soon after, he attended law school at Campbell University and moved into a private legal practice focused primarily on real estate and eminent domain. This experience led him to Progress/Duke Energy, where for 10 years, he led teams in transmission acquisition, real estate, project management, construction, facility management, and other areas. Now, with 30 years of diverse experience in law, surveying, engineering, construction, eminent domain, and other litigation / real estate matters for clients in North Carolina, he enjoys conversing with fellow professionals about these subjects through classes like this NCSS seminar. Together we will build and strengthen our collective knowledge of the industry and our profession.*

### **Jared Ownbey, PLS**

*Jared has been surveying since 2004 and has practiced as a licensed North Carolina surveyor since 2008. He joined the North Carolina Society of Surveyors in 2012, is a past Chapter President, earned the Young Surveyor of the Year Award in 2016, and currently serves on the NCSS Educational Foundation Committee. His experience has been gained across the spectrum of the surveyor's job description. From a crew chief at a corporate outfit to department chair at an Asheville firm to teaching the up-and-coming as lead Geomatics Instructor at Asheville-Buncombe Technical Community College, Jared has been acquainted with the many facets of the surveying industry. He now practices under his name in Hendersonville, proudly serving western North Carolina while apprenticing others. He serves as Vice President of the Western NCSS Chapter and sits on the Henderson County Planning Board. His love for his profession is evident in his encouraging others to get outside and try surveying.*

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**Joe Priestner, PE, PLS**

*Joe Priestner is the Emerging Technology Manager at Duncan-Parnell, focusing on the sales and support of Trimble's Monitoring and Mobile Mapping solutions and UAS solutions from Microdrones, GeoCue, and Quantum-Systems. Joe has over 35 years of experience working as a consulting surveyor and engineer, with the last 15 years focused on heavy civil and vertical construction. Joe holds a BS degree in Civil Engineering from The Citadel, a BS degree in Survey Engineering Technology from the NJ Institute of Technology and is licensed as a Professional Land Surveyor and Engineer in multiple states.*

**Andrew Ritter**

*Andrew Ritter has been with the North Carolina Board of Examiners since 1993 and has been the Executive Director since 2001. He has served on national committees for ethics, law enforcement, international licensure, education accreditation, and licensure qualifications and served as national chair of the MBA Committee for NCEES. Mr. Ritter has a Bachelor of Science Degree in Criminal Justice from Appalachian State University and a Master's in Public Administration from North Carolina State University with a concentration in finance.*

**Hadiya Swann**

*Ms. Swann is a Senior Analyst within the NC DOI Consumer Services Division's Life and Health Group. In this role she draws upon 15 yrs. of industry experience and a successful track record of delivering sound policy analysis consistent with the state and federal laws as well as a strong acumen of industry principles. Mrs. Swann uses her background in Employee Benefits, Legal Compliance and Marketing to provide policy education and engagement resources to assist consumers in making informed decisions regarding their insurance needs. Her in depth understanding of regulatory compliance in healthcare, market dynamics and the evolution of the industry by the Affordable Care Act is a proven asset in successfully servicing the citizens of NC.*

**Jeff Todd**

*Native of Annapolis, Maryland, a graduate of Wingate College, President of IMCI, and CFO of Nexus Professional Risk. Jeff never met a stranger and has helped build the business on the strength of long-time, meaningful relationships. His top Strength is Includer, so he is immediately aware when someone feels left out and will aim to make them feel part of the group. You will often find Jeff making connections so that people benefit from one another's expertise. He enjoys the problem-solving aspect of his job and is always ready to provide contract feedback to reduce companies' liabilities. Over the years, Jeff has outgrown his fear of public speaking and regularly provides educational seminars for his clients. He is a lover of the land; he and his family live on a farm with more animals than we can list here. He and his wife, Cindy, are also the proud parents of four children.*

**Nathan Xiques, PLS**

*Nathan is a Project Manager at SAM Companies. He has a Bachelor of Science degree from Henderson State University in Mathematics, a Master of Science degree in Applied Mathematics from the University of Arkansas, and an Associate of Science degree in Land Surveying from the University of Arkansas Community College at Morrilton.*

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