



Basic Error Theory for Technicians

Friday, June 15, 2018

Clark University MetroWest Campus

333 Turnpike Road (Route 9), Southborough, MA (off I-495, Exit 23A)

8:00 - 8:30 AM Registration; 8:30 AM - 4:30 PM Seminar

In the long history of surveying many “rules of thumb” have developed. Some are quite valuable and based on relevant principles of math and science, others are old wives’ tales or have become obsolete or replaced because of the capabilities of our new technology. This one-day seminar is intended for surveying technicians to explore some of the mathematics inside the proverbial black box. Through an understanding of the underlying error theory, surveying technicians will be able to make better decisions in choosing field techniques based on their inherent errors. Topics will include:

- Basic probability theory and statistics of surveying measurement;
- Error components of distance and angle measurement;
- Error propagation in horizontal and vertical networks;
- Evaluating horizontal and vertical network adjustment reports and GPS network errors.

This seminar will have an in-class problem-solving component and a calculator will be provided to all attendees.

This seminar is intended to compliment the November 2017 seminar entitled “*Basic Field Theory for Technicians*”, however attendance at that previous seminar is not required to attend and benefit from this one. This seminar is not intended for practicing land surveyors nor is it intended to meet continuing education requirements for practicing Land Surveyors.

Speaker

A. Richard Vannozzi, MS, PLS

Mr. Vannozzi is a graduate of the University of Maine where he earned a BS in Forestry with high honors and concentrations in both forest management and surveying in 1984 and an MS in Forestry (with a surveying emphasis) in 2006. From 2007-2017, Mr. Vannozzi completed an additional 40 credits of graduate course work in geomatics and adult education while enrolled in the doctoral program in Natural Resources at the University of Connecticut.

Mr. Vannozzi is an assistant professor in the Civil Engineering Department at The Wentworth Institute of Technology in Boston where he teaches geomatics, surveying and related courses. Along with developing Wentworth’s PLS Certificate Program in 2003, Mr. Vannozzi has recently spearheaded his department’s effort in creating and securing approval of a Surveying minor, whereby students can include 18 credit hours of surveying courses as part of their BS in Civil Engineering, (or other) degree work.

He is registered as a professional land surveyor in Massachusetts. Before reorienting his career to focus on surveying education in 2003, Mr. Vannozzi worked in private practice for 19 years, specializing in ancient boundary retracement, boundary dispute resolution, and title, boundary and zoning litigation. Mr. Vannozzi maintains a small consulting practice that specializes in complex boundary, title and zoning matters for select clients including attorneys and other professional land surveyors.

Mr. Vannozzi was the 2012 recipient of ACSM’s Earle J. Fennell Award for distinguished educational contributions to ACSM and the surveying and mapping profession. He is a past-president of MALSCE and, in 1998, was recognized as MALSCE’s Surveyor of the Year. He is a past president of The Engineering Center and currently serves on the National Society of Professional Surveyors (NSPS) Board of Directors representing Massachusetts. In 2017, Mr. Vannozzi was elected a Fellow of NSPS.

Registration Information

Registration fees are \$200/person for MALSCE members and \$250/person for non-members. See form for details. Registration fee includes a continental breakfast, two snack breaks, lunch and all seminar handouts. Registration is processed on a first-come, first-served basis.

Registration deadline: Tuesday, June 12, 2018. No refunds will be given after this date. No-shows will be billed. Seminar registrations will be accepted via fax, mail or online. Fax your registration to 617/227-6783. Mail your registration form and check (payable to "MALSCE") to: MALSCE, The Engineering Center, One Walnut Street, Boston, MA 02108-3616. Use Visa, MasterCard or American Express to register online at <http://bit.ly/2s0WfPD>. To register online for this seminar at the MALSCE member rate, login using your MALSCE assigned username and password. If you do not know your member login information or if you need help registering call 617/227-5551.

Continuing Education

This seminar is worth 6.5 professional development hours (subject to state-specific exclusions; seek clarification from appropriate state authorities). All seminar participants will receive a certificate documenting attendance at the end of the seminar. Please complete the registration form with your legal name, address, and other contact information so that you will be properly identified on the certificate.

Tax Information

Expenses incurred for education undertaken to maintain and improve professional skills (including travel, meals and lodging) may be tax-deductible.

Location

Clark University MetroWest Campus, 333 Turnpike Road (Route 9), Southborough, MA (off I-495, Exit 23A)

Registration Form

Basic Error Theory for Technicians

Friday, June 15, 2018, Clark University MetroWest Campus

Registrant Information

Name: _____
Company (if applicable): _____
Address: _____
City: _____ State: _____ Zip Code: _____
Phone: _____ Fax: _____ Email: _____
Dietary Restrictions: _____

Registration Fees

\$200 MALSCE Member*

* Members of, CALS, MSLS, NHLSA, NYSAPLS, RISPLS and VSLS can attend for the member rate. Please check the appropriate box below:

CALS MSLS NHLSA NYSAPLS RIPLS VSLS

\$250 Non MALSCE Member

Total Amount Enclosed

\$ _____

Make checks payable to "MALSCE" and mail with completed form to: MALSCE, The Engineering Center, One Walnut Street, Boston, MA 02108-3616

Or Pay with (Check one): Visa Master Card American Express

Card Name: _____

Card Number: _____ Expiration Date: _____

Billing Address: _____

City: _____ State: _____ Zip: _____

Signature: _____

- Registration is processed on a first-come, first-served basis. Registration deadline is Tuesday, June 12, 2018,
- No refunds will be given after this date. No-shows will be billed.
- This program is worth 6.5 professional development contact hours (subject to state approval, New York excluded).
- Questions? Call 617/227-5551