

# IBE 311

## Indoor Environmental Quality Tools & Methodologies



Open to all, from working professionals to the general public, this seminar benefits architects, interior designers, indoor air quality consultants, home inspectors, home dwellers, and other building professionals.

The daily schedule includes lectures and group activities, with practical experience in building science principles, research assignments, demonstrations, and inter-active discussions.



**Building Biology Institute**  
The science of healthy buildings

# Seminar Syllabus: IBE 311

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The Building Biology Institute (BBI) does not and shall not discriminate on the basis of race, color, religion (creed), gender, gender expression, age, national origin (ancestry), disability, marital status, sexual orientation, or military status, in any of its activities or operations. These activities refer to any and all interactions involving our potential or current students and our alumni; these operations include, but are not limited to, hiring and firing of staff, selection of volunteers and vendors, and provision of services. We have been and remain committed to providing an inclusive and welcoming environment for all.

IBE does however reserve the right to deny enrollment, whether first-time or continuing, of students it deems to present the risk of being or becoming disruptive of our program presentations, and/or a distraction for our students from what they have come to us to learn and experience.



Please direct all inquiries to:  
[outreach@buildingbiologyinstitute.org](mailto:outreach@buildingbiologyinstitute.org) • (866) 960-0333

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### Cancellation Policy

Seminar students who paid their tuition in full, and then cancel at least thirty (30) days before the first day of classes, will receive a tuition/tuition deposit refund in full (100%). Those who cancel less than thirty days out, but more than ten days out, and had paid their tuition in full, will receive a fifty percent refund; the amount they forfeited will be considered on deposit for one year, and may be applied toward any subsequent BBI event or online course. Those who cancel ten or fewer days out will not receive a refund, but their entire forfeited payment will be considered on deposit for one year.

If a student cancels out of a seminar after having received a digital and/or hard-copy of that seminar's manual, and elects to apply their tuition credit to a seminar *other* than the one for which they cancelled out, their tuition credit will be reduced by the value (\$425.00 USD) of the course manual for the seminar out of which they cancelled.

Regarding seminar room & board, our refund policy is dependent on the chosen venue's cancellation policy; if the venue should issue a refund, BBI will pass 100% of the venue's refund to the student. In like manner, should the venue refuse BBI a refund, in whole or in part, then said venue's policy becomes fully representative of BBI's policy.

### Extended Policy Stipulation

BBI does not endorse products, methods, practices, services and/or business opportunities (hereafter referred to as “offerings”) that are extraneous to BBI’s policies, practices, and/or curriculum, regardless of whether they are vended/sponsored by our alumni, students, or by outside third parties or organizations.

This policy extends to our seminars, our biennial conference, and all other live or interactive events. And while participants in our events are not restricted by BBI from apprising their fellow participants of any offerings, regardless of whether they are or may be or may not be in conflict and/or in competition with BBI, they may in no way solicit or otherwise “pitch” their fellow attendees during said event(s). Subsequent to said events, neither offerings nor follow-up appraisals of offerings may be made attempted by any means - telephone, e-mail, or snail-mail - without the expressed *prior* consent of their intended recipient(s).

BBI reserves the right to deny/rescind enrollment, whether first-time or continuing, to students it deems to present the risk of being or becoming disruptive of our program presentations, and/or a distraction for our students from what they have come to us to learn and experience.

### Discrimination: Zero Tolerance

The Building Biology Institute (BBI) does not and shall not discriminate on the basis of race, color, religion (creed), gender, age, gender expression, national origin (ancestry), disability, marital status, sexual orientation, or military status, in any of its activities or operations. These activities refer to any and all interactions involving our potential or current students and our alumni; these operations include, but are not limited to, hiring and firing of staff, recruiting/selecting of vendors, volunteers, and providers of services. We have been and remain committed to providing an inclusive and welcoming environment for all.

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### Seminar Synopsis

Building Biology, or Bau-biologie, is a specialized branch of Building Science with human health as the central focus. This 2-day seminar will put professional level tools in your hands for instructor-led experience and practice. Learn how to use the most common IEQ tools, proper calibration, how to record data, collect lab samples, and complete chain of custody forms for lab analysis. In small group settings, you and other Building Biologists will gain confidence and understanding of when, where and how to use various IEQ tools for air and water quality testing. You'll use more than one brand of tool for many of the labs, gaining familiarity not just with each tool but with the expected outcomes of using each tool. You will understand what good and bad data looks like, how to interpret what you have collected, and discuss lab analysis reports from your sampling techniques. The instructors are experienced Building Biology Environmental Consultants whose combined experience spans almost three decades.

Topics include:

- Introduction
- How and where to use IEQ equipment for Biological, Chemical and Particulate exposures by air, water and ground
- How to calibrate professional IEQ tools and equipment
- How to complete chains of custody
- How to collect lab accepted samples
- How to interpret lab analysis of samples taken

Resources: On-line module *Indoor Climate*

Time requirement: 2 days (successful completion of a written exam is required)

Prerequisite online courses: *Indoor Climate, Ventilation AND completion of BBI 211.*

### Seminar Objectives

1. Understand how to quantify the health of indoor environments by measuring and collecting data via real-time IEQ tools and sample collection for lab analysis
  - a. How to calibrate professional grade IEQ equipment
  - b. Understand the limitations of testing and quantifying conditions
2. Gain practical experience at:
  - a. Using professional IEQ equipment
  - b. Interpretation of various laboratory and other agency reports
  - c. Thinking about alternatives and common-sense solutions to creating healthier spaces
  - d. Compositing an indoor environmental assessment report
3. Understand general issues pertinent to equipment-based inspections
  - a. Safety and Personal Protective Equipment
  - b. Information resources for further education and further certification

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## Seminar Schedule

Kanuga Conference & Retreat Center  
Hendersonville, North Carolina

Day One – Dates TBD

### **IBE Intro, and Experiential labs**

- Student and instructor introductions
- Experiential labs with IEQ equipment
- Group debriefing of each tool, meter, or equipment used

Day Two – Dates TBD

### **Experiential labs, group labs and final exam**

- Experiential labs with IEQ equipment
- Group debriefing of each tool, meter, or equipment used
- Full class lab with larger equipment
- Final Exam

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### Meet The Instructors

#### IBE 311



**Stephen Collette** is a Certified Building Biology Environmental Consultant, and Principal of *Your Healthy House*, based out of Lakefield, ON, Canada. Stephen is a retired straw bale builder, having worked on two dozen straw bale structures across Ontario and Quebec, from small cottages to 13,000 sq. ft structures and everything in between. Stephen has an engineering background and became passionate about healthy housing when his family became ill due to exposure to mould. Stephen carries out indoor

environmental inspections on houses and other buildings to determine health impactors based on building science and environmental health concerns. Stephen is a LEED AP (Leadership in Energy and Environmental Design Accredited Professional) from Canada Green Building Council. Stephen has a Building Science Certificate from the University of Toronto and is a certified Building Science Specialist of Ontario. As a consultant Stephen helps people make healthier, more environmentally friendlier building choices. Stephen is a published author who writes and lectures across North America on healthy, natural and green buildings. Please visit his website at [www.yourhealthyhouse.ca](http://www.yourhealthyhouse.ca)



**Cathy Cooke**, founder and president of *Whole Home & Body Health*, has been working as an Integrative Health Coach since 2014. She is Board Certified in Holistic Nutrition by the National Association of Nutrition Professionals. Recognizing that many of her clients were “doing everything right” yet still suffering from health issues, she realized that many home and work environments were contributing to illness. Seeing dramatic improvements in her own health after limiting radiofrequency exposure

from wifi and cell phones, she received training and certification from the Building Biology Institute, affording her the expertise to evaluate all areas in a person’s life that may be contributing to illness. She holds certifications as a Building Biology Environmental Consultant, Electromagnetic Radiation Specialist, and Certified Residential Mold Inspector. To contact Cathy, please visit her website at: <https://wholehomeandbodyhealth.com>

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### Venue

Kanuga Conference & Retreat Center  
130 Kanuga Chapel Drive, Hendersonville, NC 28739  
([click here to visit the retreat center's website](#))

**BBI arranges your lodging and your food via contracts with two separate vendors, and your contract is with BBI, not with its vendors. We must ask that any issues, concerns, or needs you may have regarding your room or your food be addressed to Erik Rosen, our Director of Programs, who will be on-site and available to serve you 24/7, rather than to the venue management or the caterer.**

This venue has been vetted thoroughly by longtime BBI alumnus Diana Schultz, BBEC, EMRS, over the course of two, daylong in-person visits to the physical site, with step-by-step guidance from Larry Gust.

The venue's Wi-Fi in and around all lodging and classroom areas will be disabled throughout our time there. The EMR/EMF prevailing levels on the entire property (1,400 peaceful acres in the Blue Ridge Mountains) are very low. The IAQ conditions meet or exceed Building Biology standards. And the venue's staff is and has been working very closely with us to help ensure that these health-supporting conditions prevail.

**Overview:** Tuition and room & board must be paid in advance, please, to the Building Biology Institute. Payment may be arranged online at BBI's website ([click here](#)), or by check, or by calling BBI's executive director (505-428-0901). To pay by check, please mail your payment to: IBE, P.O. Box 8520, Santa Fe, New Mexico 87504.

We ask you to arrive the day before classes begin (Friday, 26 January). You may opt to arrive earlier and/or depart later, at an additional cost (to be determined). This is all dependent upon whether the venue can accommodate the extra days. This is a lodging fee only, and includes meal service for the extra days. Check-in begins at 3:00 PM on Friday; check-out is 10:00 AM Sunday, 28 January. To arrange early arrival, or an extended departure date, please contact our Director of Programs Erik Rosen, not the venue: <[erik@buildingbiologyinstitute.org](mailto:erik@buildingbiologyinstitute.org)>.

**Arrival/departure:** Kanuga is served by three airports: Asheville, NC, Greenville-Spartanburg, SC, and Charlotte, NC. Asheville (AVL) is closest, and is about 30 minutes from the venue via taxi or Uber.