

BBI 214: Indoor Environmental Quality for New Construction



This seminar focuses on the Building Biology principles and their relevance and practical applications in the electromagnetic and indoor air quality of our buildings in North America today. Through an in depth understanding of these concerns, we can create healthy indoor environments for ourselves and clients.

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



Building Biology Institute
The science of healthy buildings

Seminar Syllabus: BBI 214

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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.

BBI 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 • (866) 960-0333
Click [here](#) for more information on Building Biology

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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 (\$375.00 USD) of the course manual for the seminar out of which they cancelled.

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 event(s), neither offerings nor follow-up appraisals of offerings may be made or 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

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Seminar Syllabus, BBI 214

Seminar Synopsis

This 4-day seminar condenses and combines the current 211 (IAQ) and 212 (EMR) seminars. It contains the practical information that design and building professionals require for new construction and renovations in order to assure that their clients receive optimal healthy environments. The information is also relevant for anyone interested in creating their own healthy spaces with a solid understanding of both air quality and electromagnetics.

Topics include:

- EMR understanding
- EMR installations for new construction and renovation
- IAQ understanding
- IAQ improvements for new construction and renovation
- Lighting and color for health
- Acoustics

Resources: *BBI Natural, Healthy Buildings Course* [BBI 101], *Prescriptions for a Healthy House*, by Paula Baker-Laporte, et al.

Seminar Objectives

To gain a solid understanding of indoor environmental quality concerns, as they relate to the design and construction of residential buildings. The areas of focus include, biological, chemical and particulate.

To gain a solid understanding of electromagnetic radiation concerns, as they relate to the design and construction of residential buildings. The areas of focus include AC, DC and high frequencies.

To gain an understanding of lighting and daylight and the health concerns of both, as they relate to the design and construction of residential buildings.

To gain an understanding of colour in the built environment and the potential health impactors, as they relate to the design and construction of residential buildings.

To gain an understanding of acoustics and the concerns, as they relate to the design and construction of residential buildings.

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Seminar Schedule

Day One

INTRODUCTION TO BUILDING BIOLOGY AND INDOOR ENVIRONMENTAL QUALITY

- Introduction to Building Biology
- Introduction IEQ
- Building science basics
- Moisture, temperature, air movement
- Biological concerns
- Biological solutions

Day Two

CHEMICALS, PARTICULATES, EXPOSURES

- Chemical exposures/solutions
- Particulate exposures/solutions
- Radioactive exposures/solutions

Day Three

INTRODUCTION TO ELECTROMAGNETIC RADIATION

- Low frequencies
- Low frequencies, concerns and solutions
- Introduction to Alternative Wall Systems
- High frequencies
- High frequencies, concerns and solutions
- DC electric and magnetic fields
- DC electric/magnetic fields, concerns and solutions

Day Four

LIGHTING AND COLOR FOR HEALTH

- Daylighting, concerns and solutions
- Electrical lighting, concerns and solutions
- Color: natural and synthetic
- Acoustics, definitions and types
- Acoustics, concerns and solutions
- Final Exam

Meet Your Instructor

The author of this seminar

BBI 214: EMR & IEQ for Architects and Builders



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