

**Instructor:**

Barry Truax, Professor Emeritus, email: [truax@sfu.ca](mailto:truax@sfu.ca)  
websites: [www.sfu.ca/~truax](http://www.sfu.ca/~truax)      [www.sfu.ca/sonic-studio/](http://www.sfu.ca/sonic-studio/)

**Seminar:**

Thursdays, 10:00 – 12:30 pm PDT

This course includes 20 modules covering all of the theory, terminology, concepts and practices of acoustics and electroacoustic sound production, within a framework of online pedagogy. The course involves 12 webinars for a total of 30 hours, plus individual study time. Acoustic topics focus on theoretical and applied acoustics, psychoacoustics, environmental acoustics, speech acoustics, audiology, noise measurement and soundscape studies. Electroacoustic topics included studio based audio techniques, composition and sound design (with specialized overviews of convolution, microsound, voice-based and soundscape composition).

**Text:**

B. Truax (ed.), *Handbook for Acoustic Ecology*. CD-ROM version, Cambridge Street Publishing 1999.  
online at <https://www.sfu.ca/sonic-studio-webdav/handbook/index.html> (older version; newer one in the WSP Database which is used in this course along with the **Tutorial for the Handbook**, the main course document; guest access provided)

**WEBINAR TOPICS**

May 8	Module 0	Sound is.... A survey of basic concepts in each discipline
May 15	Module 1	Sound-Medium Interface
May 22	Modules 2 & 11	Vibration: Frequency and Pitch / Field Recording
May 29	Modules 3 & 12	Vibration: Spectrum and Timbre / Filters and Equalization
June 5	No class	
June 12	Modules 4 & 13	Magnitude: Levels and Loudness / Modulation and Auto-Convolution
June 19	Modules 5 & 14	Sound-Environment Interaction / Time Delays and Phasing
June 26	Modules 6 & 15	Binaural Hearing and Acoustic Space / Time Delays and Reverberation
July 3	Modules 7 & 16	Sound-Sound Interaction / Dynamic Range and Compression
July 10	Module 8	Speech Acoustics
July 17	Module 17	Microsound and Granular Synthesis
July 24	Modules 9 & 18	Audiology and Hearing Loss / Voice and Text-based Composition
July 31	Modules 10 & 19	Noise Effects & Noise Measurement Systems / Soundscape Composition