Thought Technology Ltd.

Introduction to BioGraph®Infiniti
Heart Rate Variability (HRV)
Online Course

BioGraph Infiniti HRV Online Course

is designed for Infiniti users who have purchased the Physiology Suite and want to maximize the potential use of **HRV** related applications that the Suite has to offer. This course will focus on the major clinical components that support its clinical application. In doing so, we will introduce the user to the functionality, power and versatility that the Infiniti platform has to offer as it relates to **Heart Rate Variability**.

All online courses are accredited by BCIA to fulfill the continuing education requirements for recertification.

Online Course Benefits:

- No travel expense- learn from the comfort of your own home or office.
- All courses are limited to a maximum of 3 participants to ensure individual attention.
- Rotating monthly courses allow for greater flexibility with your schedule.
- The participants will get the benefit of a "hands-on" learning experience of this powerful physiological tool.
- The online course has a total of 4-hours of instruction given over the internet. The four hours are divided into four 1.0-hour lessons given twice a week for two weeks.

KEY COURSE INFO:

Total Course Time: 4 hours, delivered in 4 sessions in the span of 2 weeks.

Course Cost: $200

Number of participants: 2-3

Frequency/schedule: monthly

COURSE OBJECTIVES

Objectives are set at the beginning of the course with the instructor and with the goal to meet the objective before the end of the Course. The goal of this course is to make beginners feel comfortable using the **HRV** screens in their Physiology Suite and to offer advanced users an overview of the full clinical potential of their systems. Participants will learn to get the most out of their hardware and the Physiology Suite software as it relates to **HRV**. They will also be able to identify various hardware accessories and software suite items, and understand how to properly engage them for effective session use.

LEARNER OUTCOMES

At the end of this 4-hour course, participants:

- Will have acquired a good understanding of their encoders, sensors, cables, electrodes, and **HRV** screens in their Physiology Suite.
- Will be able to identify and understand the physiological measurements and statistics generally used in **HRV**.
- Can explain what a virtual data-channel is and how it is related to the raw data from the **HRV** physical sensors.
- Can define what is artifact, why is artifact rejection necessary for **HRV**, and methods of artifact rejection.

Lessons 1 & 2: Recording HRV Sessions using Powerful Feedback Screens
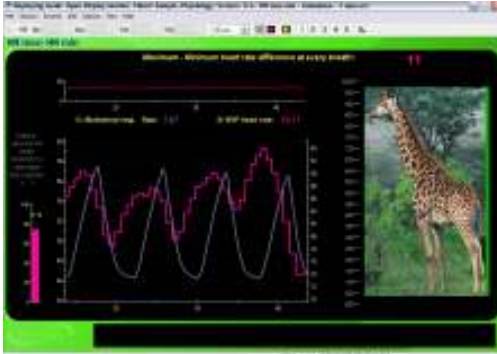
- Identify and understand the basic signal processing steps involved in calculating the time/frequency domain HRV metrics
- Identify and understand the physiological signals used for HRV training (EKG, BVP and respiration)
- Learn to optimize electrode and sensor placement for signal quality
- Understand the physiology of respiration sinus arrhythmia (RSA) training
- Run training sessions using time-domain HRV metrics (HR Max-Min, SDRR & pNN50)
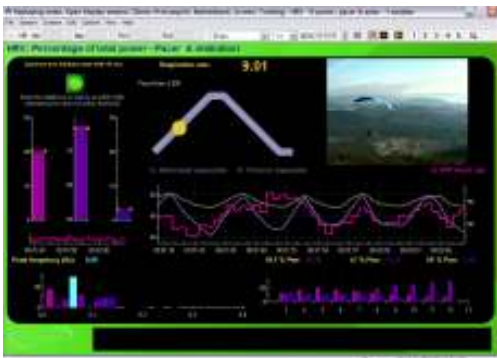
- Understand the physiology of resonance frequency training
- Understand and configure the respiration pacer
- Run a resonance frequency assessment session using the breathing pacer
- Run training sessions using frequency-domain HRV metrics (Total and percent power, resonance frequency)

Lessons 3 & 4: Reporting and Reviewing Client Progress

- Understand the recommended standards for HRV signal processing and analysis (HRV Task Force Guidelines, 1996)
- Understand artifacts and set the automatic rejection function using the advanced IBI from EKG algorithm
- Select the appropriate review screen for monitoring progress using means and trend graphs
- Generate session and trend reports

- Observe changes in RSA coherence and phase during breathing exercises
- Use the resonance frequency detection review screen
- Learn to export inter-beat interval (IBI) data for processing with a third-party data analysis software package
- Understand Pulse Transit Time and use it for biofeedback

This course is intended for licensed health professionals and those participants seeking BCIA certification if they are not already certified. As this online course is a "hands-on" learning experience, you are required to use your equipment online including computer with software, encoder and sensors. Also required are: High speed internet, Skype™ and GoToMeeting software and user ID, headset and microphone.

INSTRUCTORS:

The following is a list of the outstanding presenters who instruct the online courses and will guide you to a better understanding of your instrumentation:

Linda Walker, MHR, LPC, BCIA-EEG

Linda Walker holds a master's degree in Human Relations and Counseling from the University of Oklahoma and post graduate certificates in substance abuse and school counseling from Western Michigan University. She is licensed as a professional counselor in Oklahoma and Michigan, and as a school counselor in Michigan. She has worked with troubled youth and their families for over 12 years, most notably at Nokomis Challenge Center, a state training school for juvenile offenders in Michigan. At Nokomis, Linda has been dedicated to developing and implementing the agency's neurofeedback program.She also specializes in EMDR and substance use issues, serves as an instructor in the experiential wilderness therapy program and acts as a treatment group leader. Linda is certified in EEG biofeedback from the Biofeedback Certification Institute of America.

Didier Combatalade, D.C. Didier Combatalade is the Research Manager at Thought Technology. Didier has over 20-years experience in the healthcare industry as a clinician and in software development. Following 7-years of chiropractic experience in both private practice and a large, multidisciplinary clinic, he pursued further training in electronics and computer systems. Didier has developed printed and multimedia materials for user training and is a seasoned instructor who is very easy to follow and knows how to make material interesting. Didier is a regular presenter at the annual conferences of the AAPB, ISNR & BFE and a co-author of Erik Peper's new book: *Biofeedback Mastery: An Experiential Teaching and Training Manual*.

Jon Bale Jon is a McGill University Graduate in Biology and an Honours student from Marianopolis College. Jon is the Research Manager for the Biofeedback Foundation of Europe. He is in charge of Limited Edition Infiniti software for International Research & Education project teams and the standardization of software manuals. He is the recipient of the BFE annual "Golden Disk" award for online instruction.

Brendan Parsons Brendan has recently completed his B.A in Specialization Psychology at Concordia University and works as the Training Manager for the Biofeedback Foundation of Europe. He is pursuing BCIA – EEG Biofeedback certification and is also working at the PsychoNeuro Institute in Laval using Thought Technology equipment for neurofeedback with a variety of children, adolescents, and adults on different applications.

TO REGISTER, OR FOR MORE INFORMATION:

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CANCELLATION POLICY: Cancellations must be received in writing if requested **prior to 1 week before the course** date. You will receive credit towards a future course minus an administration fee of US$ 50. Cancellations after this date forfeit registration fee. Thought Technology Ltd. reserves the right to cancel the course with full refund.