

## GRADUATE SCHOOL OF BEHAVIORAL HEALTH SCIENCES

### CERTIFIED BREATHING BEHAVIOR ANALYST

*Educational Capnography, Biofeedback, and Behavior Analysis*

*A live-interactive webinar-based program*

**Winter Trimester, February 17 - May 6, 2018**

Email: [education@bp.edu](mailto:education@bp.edu) Registration: [www.e-campus.bp.edu](http://www.e-campus.bp.edu)

Statistics suggest that tens millions of people worldwide suffer with the profound and misunderstood symptoms and deficits of learned dysfunctional breathing habits. Unfortunately, these habits are rarely identified by practitioners, their effects mistakenly attributed to other causes, and their resolutions prescriptive in nature where focus is on symptoms rather than on causes.

**We offer a solution.** We train healthcare practitioners, human service professionals, health educators, and performance consultants to integrate breathing learning services into their practices and businesses. To this end, we offer a live-interactive webinar Certification program, **Certified Breathing Behavior Analyst** (educational capnography, respiratory psychophysiology, & behavior analysis), now starting its fifth year.

#### CERTIFICATION PROGRAM

The **Breathing Habit Analysis Certificate program** (Educational Capnography) is a fully **live-interactive webinar-based** curriculum that qualifies healthcare practitioners, human service professionals, performance consultants, and health educators to: (1) to assess breathing habits and their effects on health and performance based on the principles of behavior analysis, (2) to assist clients in managing and/or overcoming dysfunctional breathing habits that compromise physiology, psychology, and performance based on the principles of behavior modification, and (3) to use capnography and related instrumentation for assisting their clients in identifying and overcoming dysfunctional breathing habits.

#### EDUCATIONAL CAPNOGRAPHY

**Carbon dioxide** concentration in extracellular fluids plays a critical and immediate role in pH regulation, electrolyte balance, hemoglobin chemistry, circulatory physiology, muscle function, and kidney physiology. Deregulation of extracellular CO<sub>2</sub> precipitates major physical and psychological symptoms and deficits. Carbon dioxide concentration is precisely regulated by brainstem reflex mechanisms for maintaining proper homeostasis.

**Capnographs** (or capnometers) are instruments used for determining the concentration of CO<sub>2</sub> gas in blood plasma and other extracellular fluids (Interstitial, lymph, cerebrospinal). They do so by measuring End-tidal CO<sub>2</sub> (PetCO<sub>2</sub>), the CO<sub>2</sub> concentration at the end of the breath (tide) which represents the average alveolar CO<sub>2</sub> concentration. In healthy people, alveolar CO<sub>2</sub> concentration is highly correlated with arterial CO<sub>2</sub> concentration.

**Medical capnography** is about monitoring CO<sub>2</sub> in critical care, surgery, and medical emergency environments where life threatening shifts in blood gases must be continuously monitored and regulated.

**Educational capnography** is the implementation of the principles of behavior analysis and behavior modification for identifying, unlearning, and managing dysfunctional breathing habits that compromise respiration. Dysfunctional breathing habits, where reflex-regulated CO<sub>2</sub> has been compromised, may cause, trigger, exacerbate, and perpetuate a wide range of effects (symptoms and deficits) that are typically mistakenly attributed to other causes. In fact, the educational capnography is the only effective technological means to determining if, when, where, and how a learned habit compromises respiration.

## CERTIFICATION OBJECTIVES

The Certificate program teaches colleague practitioners how to: (1) determine whether or not there are dysfunctional breathing habits, (2) identify the learned behavioral components of dysfunctional habits, (3) identify the symptoms and deficits brought on by habits, (4) determine how existing health conditions may interact with the physiological effects of habits, (5) identify the triggers of breathing habits (e.g., pain), (6) identify the payoffs (reinforcements) and emotions that keep breathing habits in place, (7) uncover the origin of habits, and (8) assist patients in overcoming dysfunctional habits and learning new ones that are consistent with good physiology, especially respiration.

## CURRICULUM OVERVIEW (125 HOURS)

The 125-hour curriculum includes three 15-hour workshop courses (45 hours), one 30-hour Case Review Seminar, and one 50-hour Service Practicum (working with clients in your own setting). Participants completing the Certificate earn **six ACADEMIC (university) units and 75 CE (continuing education) hours** upon completing the Certificate. All units taken may be also applied toward earning the MS degree in Applied Breathing Sciences. The Certificate includes the following Graduate School offerings:

**February 17 and 18:** 07:00 - 17:30 Mountain Time

COURSE: **301 Respiratory Psychophysiology**

1 academic unit, 15 hours CE, two 1-day sessions

**February 24 and 25:** 07:00 - 17:30 Mountain Time

COURSE: **404 Breathing Habit Assessment**

1 academic unit, 15 hours CE, two 1-day sessions

**March 3 and 4:** 08:00 - 16:30 Mountain Time

COURSE: **405 Breathing Habit Modification**

1 academic unit, 15 hours CE, two 1-day sessions

**March 11, 18, 25; April 8, 15, 22, 29; May 6:** 08:00 - 12:00 Mountain Time

PROSEMINAR: **601 Case Analysis & Review**

2 academic units, 30 hours CE, eight 4-hour sessions

**March 6 - May 31,** on your own time in your own practice

PRACTICUM: **701 Service Practicum**

1 academic unit, 50 hours of practical experience, in your own setting

Four of the Practicum sessions are formally presented during Case Review sessions.

Eight 4-hour Case Review sessions are scheduled during the 8-week practicum time.

## COMPLETION TIME (15 weeks, one trimester)

The Certificate is designed to be completed in 10 weeks during the trimester. Enrollees take the required three courses early in the trimester (three weekends), and then implement what they've learned in the courses during Practicum and Case Review during the remaining eight weeks.

## REQUIRED INSTRUMENTATION

Capnography instrumentation with software displays of the live capnogram, breaths per minute, and End-tidal CO<sub>2</sub> is **required by February 23, 2018**. EMG and HRV instrumentation is highly recommended.

**TUITION: \$3,000.00** (\$500.00 per unit)

Make a \$300 deposit. Pay the balance in full before February 17, or in three installment payments as presented while checking out during registration. **Registration:** [www.e-campus.bp.edu](http://www.e-campus.bp.edu).