

# Brain Training Certificate Course

Offered by Physio Karma Solutions Pvt. Ltd.

## Redefining Excellence in Training, Therapy, and Research

Are you ready to revolutionize how you understand and apply brain science? Our **6-month hybrid Brain Training Certificate Course** is designed for **coaches, psychologists, physiotherapists, researchers, and academicians** who want to harness the latest advancements in neuroscience and cognitive science. This program blends cutting-edge technology, psychological skills training, and practical applications to foster excellence in athletic performance, therapeutic interventions, and academic pursuits.

## What You'll Learn

This interdisciplinary course provides a well-rounded education in both theory and practice:

### 1. Brain Functions & Cognitive Science

- Explore brain anatomy and how it influences functions like decision-making, memory, attention, and emotional regulation.
- Learn about neuroplasticity and its role in cognitive and behavioral adaptations.

### 2. Sports Psychology & Beyond

- Insights into the psychological skills that enhance focus, resilience, and motivation in athletes and clients.
- Application of psychological principles for both sports and therapeutic contexts.

### 3. Cognitive Training Techniques

- Methods to improve attention, reaction time, memory, and decision-making.
- Practical exercises adaptable for athletes, patients, or research subjects.

#### 4. Brain Training Using Technology

- Hands-on experience with advanced tools such as neurofeedback, virtual reality (VR), and sensory devices.
- Safe and effective implementation of technologies like tDCS, AVE, and CES for different applications.

#### 5. Holistic Integration of Psychological Skills

- Combining mental conditioning with cognitive and sensory training for well-rounded development.
- Strategies to apply brain training principles in both sports and therapy.

#### 6. Research Applications

- How to integrate brain training into research protocols for studying cognitive and behavioral outcomes.
- Data collection and analysis techniques using cutting-edge devices.

### Course Highlights

#### 1. Hybrid Format for Optimal Learning

- **Online Classes:** Gain in-depth theoretical knowledge through structured, interactive online sessions.
- **Offline Classes:** Participate in practical, hands-on training sessions twice a week where you'll work with state-of-the-art brain-training technologies.

#### 2. Comprehensive Learning Resources

- **A detailed textbook on cognitive training** to guide your learning journey.
- **Step-by-step instructional videos** demonstrating:
  - Proper use of devices.
  - Conducting assessments.
  - Implementing technology into coaching and athlete development.

### 3. Certification & Tools for Implementation

- **Course Completion Certificate:** Showcase your expertise in brain training.
- **Access to a Brain Training Modality:** Upon successful course completion, you'll receive a basic brain training technology to start applying your new skills immediately.

### 4. Cutting-Edge Brain Training Modalities

- Learn to operate and implement the following tools and platforms:
  - **Sensory and Cognitive Training:** Sensory Station, Strobe Glasses.
  - **Neurofeedback Devices:** Neurofeedback Headset, Brain Sensing Cognitive Trainer, Neurofeedback Meditation, Smart Goggles.
  - **Reaction Time Training:** Synchrony Reaction Light, Reaction Time Performance Trainer.
  - **Virtual Reality Platforms:** Reaction Time Trainer, Mindful Meditation, Neurotrainer, and Sports-Specific VR Games.
  - **Transcranial Direct Current Stimulation (tDCS):** Neurostimulator TDCS, Flow TDCS for motor and decision-making regions of the brain.
  - **Additional Modalities:** Energy patches, Audio Visual Entrainment, and Cranio-Electric Stimulation (AVE and CES).

## Brain Training Curriculum: Integrating Technology, Neuroscience and Psychology

Module	Topics	Details
<i>Module 1: Fundamentals of Brain Anatomy (Weeks 1–4)</i>	Introduction to Brain Training	Importance of brain training, neuroplasticity, benefits of integrating technology in sports arena.
	Brain Anatomy & Cognitive Functions	Anatomy of the brain: Lobes, hemispheres, and major structures. Cognitive functions and brain regions responsible (e.g., prefrontal cortex for decision-making, motor cortex for movement, etc.). Brain plasticity and its role in training.
	Neuroscience of Performance	Brain-body connection in athletic performance. How stress and emotions impact cognitive and physical performance. Neurochemicals involved in focus, motivation, and recovery
	Sports Psychology Fundamentals	Role of mental toughness, focus, and emotional control. Psychological barriers and overcoming them.
	Technology Overview	Introduction to brain training devices and their applications
<i>Module 2: Technologies in Brain Training (Weeks 5–12)</i>	Sensory and Perceptual Training	Using Sensory Station, Strobe Glasses; practical sensory drills
	Neurofeedback and Biofeedback	Devices: Neurofeedback Headset, Brain Sensing Cognitive Trainer, Muse, Smart Goggles
	Reaction Time and Depth Perception	Training with Synchrony Reaction Lights, 3

*Module 3: Assessment and Integration (Weeks 13–18)*

Virtual Reality and Gamified Training	Exploring VR platforms: Reaction Time Trainer, Mindful Meditation, Neurotrainer, and Sports-Specific Games
Transcranial Direct Current Stimulation (tDCS)	Devices: Neuro stimulator tDCS, Flowtime tDCS for motor cortex and DLPFC stimulation; safe usage
Additional Modalities	Energy Patches, David Delight Pro (AVE and CES) for relaxation, focus, vagus nerve stimulation
Cognitive and Sensory Assessments	Conducting baseline assessments with devices
Integrating Brain Training	Combining psychological skills training with brain training; developing individualized plans
Video Demonstrations and Analysis	Tutorials on technology use; troubleshooting and error identification

*Module 4: Sports-Specific Applications (Weeks 19–22)*

Customizing Brain Training for Sports	Tailoring training programs for racket sports, endurance sports, and team sports
On-Field Integration	Applying brain training techniques during live coaching sessions

*Module 5: Practical Implementation and Certification (Weeks 23–24)*

Capstone Project	Developing a sport-specific brain training program; peer reviews
Final Practical Assessment	Hands-on evaluation using a brain training modality
Course Completion Ceremony	Certification and access to a basic brain training modality

*Learning Materials*

Textbook and Video Guides	Comprehensive textbook on cognitive and brain training;
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*Outcomes*

	video demonstrations of devices and assessments
Devices for Hands-On Training	Devices: Sensory Station, Strobe Glasses, Neurofeedback Headset, Neurofeedback Meditation, 3D Perception Training, VR Platforms, tDCS Devices, Energy Patches, AVE, Brain Sensing Cognitive Trainer, etc.
Skills Acquired	Understanding brain functions, sports psychology, proficiency in devices, ability to develop sport-specific brain training programs, certification

## Why Enroll?

- **Hands-On Expertise:** Gain practical experience with tools that professional athletes and elite teams use globally.
- **Comprehensive Curriculum:** Cover foundational and advanced topics with a focus on real-world application.
- **Immediate Application:** Start implementing your skills right after the course with your free brain training modality.
- **Flexible Schedule:** Online and offline hybrid model ensures you can balance learning with your coaching responsibilities.

## Who Should Enroll?

This course is ideal for:

- Sports coaches who want to innovate their coaching methodologies.
- Trainers seeking to enhance athletes' mental and cognitive abilities.

Professionals eager to integrate sports psychology and technology-driven solutions into their practice.

## Transform Your Practice

Whether you're a coach aiming to refine athletes' performance, a psychologist seeking innovative therapeutic approaches, a physiotherapist integrating cognitive training into recovery programs, or a researcher advancing studies in neuroscience, this course is your pathway to professional growth.

## Closing Note

At Physio Karma Solutions Pvt. Ltd., we believe in empowering professionals with the knowledge and tools to transform their fields. Our **Brain Training Certificate Course** is not just a program—it's a journey into the future of performance enhancement, therapy, and research. By integrating science, technology, and practical application, this course equips you to make a lasting impact on your athletes, clients, and students. Whether you're a coach, psychologist, physiotherapist, researcher, or academician, you'll leave this program with the expertise to elevate your practice and set new standards in your profession.

**Together, let's push boundaries and inspire change.**