



International Training Institutes in Neurologic Music Therapy® are open to allied professionals, music therapists, and students who are interested in gaining a deeper understanding of Neurologic Music Therapy® (NMT™) and utilizing NMT™ methodology and techniques within their scope of practice. These workshops will provide therapists with advanced clinical training and scientific knowledge in the field of NMT™.

The Neurologic Music Therapy® (NMT™) System of Techniques is a standardized evidence-based clinical treatment system of 20 techniques that is driven by advances in applied auditory music neuroscience and the clinical understanding of music perception, production, and cognition. The NMT™ System targets specific functional behaviours in the areas of cognition, sensorimotor, and speech and language based on a client's diagnostics and treatment goals. The NMT™ system provides structured music-based exercises that are not only relevant to NMT™ music therapists but exemplify how music can be integrated into intervention practices for all allied healthcare professionals, in the disciplines such as physical therapy, occupational therapy, neuropsychology, and speech-language pathology. The Transformational Design Model (TDM)™ is the clinical model that guides the selection of NMT™ technique based on client diagnostics, functional assessment, client long-term goals and short-term objectives, and the understanding of overlapping parallel mechanisms between the non-musical behaviour and the musical translation. Communities served by NMT™ include, but are not limited to: acquired brain injuries, movement disorders, developmental disorders and ASD, AD, and other related dementia, and mental health. The NMT™ Techniques are implemented by therapists who have received advanced professional training through the Academy of Neurologic Music Therapy®.

Course Objectives:

- 1) Participants will gain a working knowledge of the Neurologic Music Therapy® (NMT)™ System of Techniques through active practice and live demonstration.
- 2) Participants will demonstrate an increased knowledge of current research supporting NMT™ techniques through active translation into therapeutic music exercises;
- 3) Participants will demonstrate a working knowledge of the Transformational Design Model (TDM)™ by working through clinical scenarios and presenting their projected clinical outcomes;
- 4) Participants will identify current clinical assessments that can be used by NMT™ Professionals for treatment evaluation of functional motor, cognitive, speech/language, and psychosocial outcomes;
- 5) Participants will be able to answer basic neuroanatomy and neuropathology questions related to a variety of neurologic disorders.



More Information

Upon successful completion of this course and a written test, a certificate of completion in advanced Neurologic Music Therapy® (NMT)™ training will be issued by the Academy of Neurologic Music Therapy®. Successful completion of the NMT™ training and professional affiliation license requirements allows one to practice the NMT™ System of Techniques and use the professional designation assigned for five years.

This training is open to other students and professionals outside of the field of music therapy, however, completion of the NMT™ training does NOT allow one to practice outside their professional licensure-training-certification. There are no required prerequisites to take this training.

Endorsements

This International Training Program of the Academy is endorsed by,

- World Federation of Neurologic Rehabilitation (WFNR)
- European Federation of Neurorehabilitation Societies (EFNS)
- International Society for Clinical Neuromusicology (CNM)
- Training is also approved by the U.S. Certification Board for Music Therapists (CBMT) as advanced provider for Continuing Music Therapy Education (CMTE) credits [The Academy for Neurologic Music Therapy® #P-105, maintains responsibility for program quality and adherence to CBMT policies and criteria].



Course Curriculum

- **Scientific Foundations of NMT™**
- **Neuropathology/ Disease Review**
- **Transformational Design Model (TDM)™/Standardized Assessment**
- **Sensorimotor Techniques:**
 - Rhythmic Auditory Stimulation (RAS)®
 - Pattern Sensory Enhancement (PSE)®
 - Therapeutic Instrumental Playing (TIMP)®
- **Speech Techniques:**
 - Melodic Intonation Therapy (MIT)™
 - Musical Speech Stimulation (MUSTIM)™
 - Rhythmic Speech Cueing (RSC)®
 - Vocal Intonation Therapy (VIT)®
 - Therapeutic Singing (TS)™
 - Oral Motor and Respiratory Exercises (OMREX)™
 - Developmental Speech and Language Training through Music (DSLTM)®
 - Symbolic Communication Training through Music (SYCOM)™
- **Cognitive Techniques:**
 - Musical Sensory Orientation Training (MSOT)®
 - Music Neglect Training® (MNT™)
 - Auditory perception Training (APT)™
 - Musical Attention Control Training (MACT)™
 - Musical Mnemonics Training (MMT)™
 - Associative Mood and Memory Training (AMMT)™
 - Musical Executive Functions Training (MEFT)®
 - Music Psychosocial Training (MPC)™
 - Musical Echoic Memory (MEM)™



Sample Training Schedule

Asynchronous Components of Training (can be completed after Training but before Final Test - within 30 days):

1. Basic Principles of Vocal Intonation Therapy (VIT)® - Charlene Santoni
2. Auditory Perception Training (APT)™ with Kathrin Mertel

Synchronous Components of Training

Day 1

8.30-8.45 Registration
8.45-9.00 Introduction (.25)
9.00-10.00 Intro to Principles of Neurologic Music Therapy® Recap (1)
-----5-minute stretch-----
10.05-10.30 Neuropathology Disease Review (.5)

10.30-10.45 Break
10.45-12.00 Transformational Design Model (TDM)™
-----5-minute stretch-----
12.05-13.00 Speech/Language (1)
13.00-13.45 Lunch
13.45-15.45 Speech/Language (2)
15.45-16.00 Break
16.00-17.05 Speech/Language (1)
-----5-minute stretch-----
17.10-18.00 Rethinking the Role of Music in Neurodevelopmental Disorders (.75)

Day 2

8.30-8.45 Registration
8.45-9.00 Introduction (.25)
9.00-10.30 Speech/Language Clinical Practice (1.5)
-----5-minute stretch-----
10.35-11.45 Speech/Language Presentations (1.25)
11.45-12.00 Break
12.00-13.00 Cognitive Techniques (1)
13.00-13.45 Lunch
13.45-15.45 Cognitive Techniques (2)
15.45-16.00 Break
16.00-18.00 Cognitive Techniques (2)



Day 3

8.30-8.45	Registration
8.45-9.00	Introduction (.25)
9.00-10.00	Cognitive Techniques Practice Session (1)
10.00-10.45	Cognitive Clinical Presentations (.75)
10.45-11.00	Break
11.00-12.15	Patterned Sensory Enhancement (PSE)® (1.25)
12.15-13.00	Therapeutic Instrumental Music Performance (TIMP)® (.75)
13.00-14.00	Lunch
14.00-14.45	Sensorimotor Practice Session I (.75)
-----5-minute stretch-----	
14.50-15.35	Sensorimotor Practice Session II (.75)
15.35-15.45	Break
15.45-17.00	NMT™ Techniques with Developmental Disabilities (1.25)
-----5-minute stretch-----	
17.05-18.00	Gait Assessment (1.25)

Day 4

8.30-8.45	Registration
8.45-9.00	Introduction (.25)
9.00-10.30	Rhythmic Auditory Stimulation (RAS)® Gait Training (1.5)
10.30-10.45	Break
10.45-11.45	Rhythmic Auditory Stimulation (RAS)® Gait Training (1)
11.45-12.30	Rhythmic Auditory Stimulation (RAS)® Practice Sessions (.75)
-----5-minute stretch-----	
12.35-13.15	Wrap Up, Q&A (.75)

- The Final Test and Course Evaluation will be posted to the training materials page immediately following the training
- Participants will have 30 days to complete the Final Test and Course Evaluation



Academy Teaching Faculty



Dr. Michael H. Thaut

Michael H. Thaut received his Master's in Music in 1980 and his PhD in music with a cognate minor in movement science in 1983, both from Michigan State University. He is also a graduate of the Mozarteum Music Conservatory in Salzburg/Austria. At Colorado State University he was a Professor of Music and a Professor of Neuroscience and served as Co-Director of the School of the Arts and Chairman of the Department of Music, Theater, and Dance from 2001-2010. He was also the director of the Center for Biomedical Research in Music for 11 years. He has been a Visiting Professor in medical and music schools around the world (Germany, Italy, USA, Japan), and 2010-2012 was chancellor of the University System of the SRH-Foundation Heidelberg. He currently is a Professor of Music with cross appointments in Neuroscience and Rehabilitation Science at the University of Toronto where he directs the Music and Health Research Collaboratory (MaHRC) and the Masters/PhD programs in Music and Health Sciences.

Dr. Thaut's internationally recognized research focuses on brain function in music, especially time information processing in the brain related to rhythmicity and biomedical applications of music to neurologic rehabilitation of cognitive and motor function. He received the National Research Award in 1993 and the National Service Award in 2001 from the American Music Therapy Association. He has over 120 scientific publications and has authored and coauthored 3 books. His works have appeared in German, Japanese, Korean, Italian, and Spanish language. Popular TV media and numerous print media have featured his research nationally and internationally.

As a former professional violinist in the classic and folk genre, he has recorded several recordings of chamber and folk music in the US and Germany and has toured in Europe extensively with folk bands and chamber groups. He is also the author of a landmark anthology of Northern European and American fiddle music. In 1995 his group 'Folk Chamber Ensemble' played 3 invited concerts at the Northwest German Summer Music Festival entitled 'Folk Meets Classic.' He continues to perform in small chamber and folk ensembles as time permits.



Dr. Corene P. Hurt-Thaut

Corene Hurt-Thaut received her master's in music therapy and her PhD with an interdisciplinary focus of music, neuroscience, and statistical design, from Colorado State University. She served as a special assistant professor of music therapy from 1997-2014, teaching classes in piano technique, music therapy methods and counseling for psychiatric populations, music therapy methods in neuro-rehabilitation, research in music therapy, advanced techniques in neurologic rehabilitation, and seminars in Neurologic Music Therapy®. She was a research associate at The Center for Biomedical Research in Music at Colorado State University from 1997-2015, and the co-founder and program director of The Unkefer Academy for Neurologic Music Therapy® International Training Institutes and Fellowship Trainings for Neurologic Music Therapy® since 1999.

She is nationally and internationally recognized for her clinical expertise in the evidence-based practice of Neurologic Music Therapy®, with clinical experience including 3 ½ years as a music therapist at Wesley Woods Geriatric Hospital and the Center for Rehabilitation Medicine at Emory University Medical School in Atlanta, and 4 years as a Neurologic Music Therapist at Poudre Valley Hospital and The Center for Neurologic Rehabilitation in Fort Collins, Colorado. Her work has included a diverse range of clinical populations including: stroke, Parkinson's disease, traumatic brain injury, cerebral palsy, multiple sclerosis, Alzheimer's disease, Autism Spectrum Disorder, and psychiatric disorders.

She served on the exam committee for the National Certification Board for Music Therapy (CBMT) as both a member and Committee Chair from 2001-2006, and as an elected member of the CBMT National Board of Directors from 2009-2013. She has also served as President and Vice President of the Midwestern Region of American Music Therapy Association. Dr. Hurt-Thaut has numerous research publications in the area of music and motor control as well as ten book chapters highlighting specific applications of Neurologic Music Therapy® to her credit.



Suzanne Oliver, MT-BC, NMT Fellow

Suzanne Oliver is the Founder and Executive Director of Neurologic Music Therapy® Services of Arizona/NMTSA, a nonprofit organization that has provided clinical music therapy services to the Phoenix community for over 32 years. She also founded a school for students with autism, approved through the Arizona Department of Education, in 2007. Suzanne is a

Board-Certified Music Therapist, received her NMT training in 1999, and additionally has completed four NMT Fellowships since that time. Suzanne assisted in developing the Unkefer Academy for Neurologic Music Therapists at CSU and co-authored the Medical Coding and Records Manual: Neurologic Music Therapy® Her passion is to educate the community on current research regarding the impact of rhythm on the brain and how this knowledge can positively impact the treatment of individuals with neurologic differences and improve their everyday life.



Ruth Rice, DPT

Ruth Rice, Physical Therapist, has been involved with research on the effects of rhythm and music for neurological rehabilitation techniques for the last 20 years and has also been a clinician treating orthopedic and neurological diagnoses for the last 22 years. Ruth received her master's degree in Physical Therapy in 1988 and a Doctorate in

Physical Therapy in 2008. She has been a clinician at Poudre Valley Hospital in Fort Collins for the last 20 years and is an instructor/facilitator for 3 Neurologic Music Therapy® community exercise groups per week, she also continues with research projects with the Center for Biomedical Research in Music at Colorado States University.



Dr. Charlene Santoni

Charlene Santoni received her master's degree in Vocal Pedagogy and her PhD in Music and Health Science with a specialization in voice from The University of Toronto. Her doctoral research explored ways of influencing oral-nasal balance in speech and singing in typical speakers and speakers with hypernasality. Her work earned publication in the *Journal of Voice*, *Folia Phoniatica et Logopaedica*, and *The International Journal of Pediatric Otorhinolaryngology*. She also co-authored a chapter on music-inspired speech and language rehabilitation that is featured in the *Oxford Handbook for Music and the Brain*. She is currently a guest lecturer at The University of Toronto and a sessional singing voice instructor at McMaster University. She also maintains a private studio where she provides advanced singing training, singing voice rehabilitation services, and vocal intonation therapy. In 2014, she was awarded The National Association of Teachers of Singing Voice Pedagogy Award. Charlene is a Neurologic Music Therapy® Affiliated Professional that specializes in vocal intonation therapy. For more information about Dr. Santoni, you can visit her website: www.charlenesantoni.com.



Kathrin Mertel

Kathrin Mertel earned her diploma in music therapy in 2003 and completed her master's degree in Neurologic Music Therapy® in 2005. 2006 – 2011 she was working full-time at a Neurological Rehabilitation Center in Dresden where she mainly treated patients suffering from TBI and cerebral palsy. From 2011-2021 she was working at the Cochlear Implant Center of the University Hospital Dresden. There she established a treatment program focused on auditory perception training and cognitive training. In addition to her clinical work, Kathrin Mertel is the author of publications, gives lectures and workshops and held a teaching assignment at the Music Therapeutic Institute of the University of the Arts in Berlin until 2020. In Fall 2021, Kathrin began her Ph.D. studies under Dr. Michael Thaut at the University of Toronto.