

1 Science & Foundational Frameworks												
Core Neuroscience <i>The Foundation</i> <ol style="list-style-type: none"> Central nervous system architecture (brain, spinal cord, peripheral nerves) Autonomic nervous system (sympathetic/parasympathetic/dorsal vagal) Polyvagal theory (Stephen Porges) - hierarchy of response Neuroception - subconscious safety/threat detection Window of tolerance (Dan Siegel) - optimal arousal zone Neuroplasticity - capacity for change and adaptation Vagal tone and vagus nerve function Fight/flight/freeze/fawn response patterns 	Neurophysiology <i>The Mechanics</i> <ol style="list-style-type: none"> Heart Rate Variability (HRV) and coherence patterns Stress response cascade (HPA axis, cortisol, adrenaline) Neurotransmitter systems (GABA, serotonin, dopamine, norepinephrine) Brain wave patterns (alpha, beta, theta, delta) and regulation Inflammation and immune system connections Cellular biology - mitochondrial function, cellular stress responses Fascial/connective tissue research - vagal pathways, tensegrity Gut-brain axis - microbiome, enteric nervous system, vagal communication 	Neuropsychology <i>The Thinking & Feeling Self</i> <ol style="list-style-type: none"> Hereditary nervous system patterns and predispositions Epigenetic changes through nervous system experiences Gene expression and environmental nervous system factors Evolutionary biology - adaptive value of nervous system responses Evolutionary trauma and species-level nervous system patterns 	Genetics & Epigenetics <i>The Programming</i> <ol style="list-style-type: none"> Hereditary nervous system patterns and predispositions Epigenetic changes through nervous system experiences Gene expression and environmental nervous system factors Evolutionary biology - adaptive value of nervous system responses Evolutionary trauma and species-level nervous system patterns 	Circadian & Bio Rhythms <i>The Timing Systems</i> <ol style="list-style-type: none"> Circadian biology and nervous system synchronization Sleep cycles and nervous system recovery patterns Ultradian rhythms and energy management cycles Seasonal patterns and light exposure effects on regulation Hormonal cycles and nervous system fluctuations Meal timing and metabolic nervous system impacts Work-rest cycles and sustainable performance rhythms 	Developmental Neuroscience <i>The Formation</i> <ol style="list-style-type: none"> Critical periods and sensitive windows Co-regulation to self-regulation development pathway Adverse Childhood Experiences (ACEs) and nervous system impact Developmental trauma and neurobiological effects Intergenerational transmission of nervous system patterns Resilience factors and protective experiences Neurodevelopmental disorders and nervous system variations 	Social Neuroscience <i>The Connection</i> <ol style="list-style-type: none"> Attachment theory (Bowlby, Ainsworth, Main) - secure/insecure patterns Attachment neuroscience and bonding Mirror neuron systems and attunement Emotional contagion and co-regulation dynamics Social engagement system (facial expressions, vocalization listening) Interpersonal neurobiology (Dan Siegel) Oxytocin, vasopressin and social bonding chemistry Collective nervous system phenomena and group dynamics 	Sensory, Cognitive Processing <i>The Input Systems</i> <ol style="list-style-type: none"> Sensory processing patterns (hypo/hyper sensitivity, integration) Interception - internal bodily awareness Proprioception and spatial awareness Cognitive neuroscience - prefrontal cortex, executive function Attention regulation and focus capacity Memory systems (procedural, semantic, episodic) and nervous system states Sensory modulation and environmental sensitivity 	Cultural Neuroscience <i>The Context</i> <ol style="list-style-type: none"> Cultural influences on nervous system development and expression Collectivist vs individualist nervous system patterns Cultural trauma and healing practices Indigenous wisdom and nervous system understanding Cultural rituals and nervous system regulation Cross-cultural variations in emotional expression and regulation Cultural context of safety and threat perception 	Embodied Cognition <i>The Integration</i> <ol style="list-style-type: none"> Somatic markers in decision-making (Damasio) Embodied emotion and feeling states Body-mind integration research Felt sense and somatic intelligence Embodied self-awareness and presence Somatic psychology principles 	Trauma & Stress Science <i>Ruptures & Repair</i> <ol style="list-style-type: none"> Trauma response typology and survival strategies Complex PTSD and developmental trauma (van der Kolk, Herman) Somatic experiencing principles (Peter Levine) Trauma and memory (implicit vs explicit) Post-traumatic growth and integration Collective and historical trauma impacts Trauma-informed understanding and approaches Vicarious and secondary trauma 	Nervous System Disorders <i>The Variations</i> <ol style="list-style-type: none"> Autism spectrum disorders and nervous system differences ADHD and attention regulation challenges Anxiety disorders from nervous system perspective Depression and nervous system dysregulation Sensory processing disorders Neurodevelopmental variations and atypical patterns Chronic illness and nervous system impact 	Regulation Science <i>Your Daily Practice</i> <ol style="list-style-type: none"> Breathing techniques and respiratory influence on nervous system Meditation and mindfulness neuroscience Movement therapies and somatic practices Touch and nervous system regulation Environmental factors (nature, sound, light, space) Nutritional psychiatry and nervous system support Sleep hygiene and recovery protocols Creative expression and nervous system regulation Psychodelic research and nervous system reset
The basic building blocks - how the system works				Time and growth - natural cycles and change				How we connect and process information		When things go wrong		Freedom

2 Individual Assessment & Awareness						
Nervous System State Recognition <i>Self Foundation</i> <ol style="list-style-type: none"> Autonomic state identification (sympathetic/parasympathetic/dorsal vagal activation) Window of tolerance awareness and tracking Fight/flight/freeze/fawn response pattern recognition Arousal level assessment (hyper/hypo activation) Nervous system capacity and resource evaluation Activation threshold and trigger identification Recovery pattern and regulation capacity assessment 	Body-Mind Flow Awareness <i>Body Intelligence</i> <ol style="list-style-type: none"> Interceptive accuracy and internal bodily sensation recognition Breath pattern awareness and respiratory assessment Muscle tension and physical holding pattern identification Heart rate variability and cardiovascular awareness Postural awareness and embodiment assessment Movement quality and coordination evaluation Somatic marker recognition in decision-making 	Emotional Regulation Assessment <i>Feeling States</i> <ol style="list-style-type: none"> Emotional activation and intensity tracking Emotional regulation capacity evaluation Trigger identification and emotional pattern mapping Emotional recovery time assessment Emotional granularity and differentiation skills Affect tolerance and emotional window assessment Co-regulation needs and emotional interdependence 	Cognitive Function Assessment <i>Mental Clarity</i> <ol style="list-style-type: none"> Attention and focus capacity under different nervous system states Executive function assessment (planning, working memory, flexibility) Decision-making capacity and cognitive load evaluation Mental fatigue and cognitive resource assessment Memory function in various nervous system states Processing speed and cognitive efficiency Metacognitive awareness and self-monitoring skills 	Environment Sensitivity Assessment <i>Context Awareness</i> <ol style="list-style-type: none"> Sensory processing patterns and environmental sensitivity Physical environment impact on nervous system states Social environment and relational nervous system responses Neuroception accuracy (safety/threat detection calibration) Environmental overwhelm and stimulation thresholds Optimal environment identification for regulation Workplace and living space nervous system 	Self Regulation Capacity Assessment <i>Personal Mastery</i> <ol style="list-style-type: none"> Self-soothing and self-calming effectiveness evaluation Recovery time and resilience pattern assessment Regulation tool effectiveness and personal preferences Stress tolerance and adaptive capacity measurement Personal regulation practice consistency and impact Coping strategy repertoire and flexibility assessment Self-advocacy and boundary-setting capacity 	Co-Regulation Awareness <i>Interpersonal Impact</i> <ol style="list-style-type: none"> Personal nervous system impact on others assessment Attunement and empathy capacity evaluation Communication effectiveness in different nervous system states Conflict and repair capacity in relationships Leadership presence and nervous system modeling Social engagement and connection capacity Collective nervous system awareness and group dynamics

HUMAN OPERATING SYSTEM ARCHITECTURE

This is the Mind-Body Science Field
One of the 9 Fields That Informs HOSA

How to Read This Diagram: This is an in-depth look at **one** of the nine major fields that inform Human Operating System Architecture (HOSA).
Mind-Body Science alone contains dozens of subdomains, modalities, frameworks, and assessment systems. HOSA integrates this domain with eight others to form a coherent operating system for human change.

3 Modalities & Interventions - Hyperarousal						
Immediate Discharge & Contain <i>Crisis Intervention</i> <ol style="list-style-type: none"> Progressive muscle relaxation and systematic tension release High-intensity cardiovascular exercise for energy discharge Cold exposure therapy and ice applications Vocal release techniques (toning, humming, controlled yelling) Neurogenic tremoring and shaking practices (TRE) Vigorous movement and martial arts for contained aggression Rapid breathing techniques 	Grounding & Stabilisation <i>Restore Safety To The Moment</i> <ol style="list-style-type: none"> 5-4-3-2-1 sensory grounding and present-moment anchoring Weighted blankets and deep pressure stimulation Earthing and direct ground contact Heavy work activities and proprioceptive loading Cold compress applications and cooling interventions Firm touch, massage, and pressure point work Gravity-assisted positions and supported rest 	Breathing Regulation <i>Parasympathetic Activation</i> <ol style="list-style-type: none"> Extended exhale breathing patterns (4-7-8, coherent breathing) Box breathing and rhythmic breath control Vagal breathing with humming and vocalization Diaphragmatic breathing and belly focus Breath retention and CO2 tolerance building Alternate nostril breathing (Nadi Shodhana) HRV biofeedback and coherence training 	Somatic Discharge Practices <i>Body-Based Release</i> <ol style="list-style-type: none"> Somatic Experiencing completion cycles and discharge TRE neurogenic tremoring and involuntary movement Bioenergetic exercises and emotional release work Authentic Movement and expressive dance therapy Continuum Movement for nervous system flow Active bodywork and manual therapy interventions Rolling and structural 	Cognitive Regulation <i>Mental Calming</i> <ol style="list-style-type: none"> Mindfulness meditation adapted for hyperactivation Loving-kindness and self-compassion practices Body scan meditation with acceptance and release Cognitive reframing and thought interruption techniques DBT distress tolerance and emotional regulation skills RAIN technique and mindful awareness practices Visualization and guided imagery for calm states 	Environmental Modification <i>External Regulation</i> <ol style="list-style-type: none"> Lighting reduction and visual stimulation control Sound dampening and acoustic environment management Temperature regulation and cooling strategies Organised spaces and environmental simplification Nature immersion and outdoor regulation Hydrotherapy and water-based interventions Aromatherapy and essential oils for nervous system 	Advanced Integration Practices <i>Long-Term Regulation</i> <ol style="list-style-type: none"> EMDR and bilateral stimulation for trauma processing Somatic psychotherapy and body-oriented healing Neurofeedback and brainwave regulation training Polyvagal-informed therapeutic approaches Internal Family Systems work for hyperactivated parts Hakomi Method and mindful somatic awareness Psychodelic-assisted therapy in clinical settings

4 Modalities & Interventions - Hypoarousal						
Activate & Mobilise <i>Energy Building</i> <ol style="list-style-type: none"> Micro-movements and gentle mobilization exercises Supported stretching and assisted range of motion Rhythmic movement and gentle bouncing Gradual walking and progressive mobility Self-massage and circulation stimulation Penetration movements and oscillation Postural activation and supported standing 	Respiratory Activation <i>Energy & Alertness</i> <ol style="list-style-type: none"> Energizing breath patterns (breath of fire, bellows) Rapid breathing for sympathetic activation Chest breathing and upper respiratory engagement Breath holds on inhalation for energy building Vigorous pranayama techniques (Bhastrika, Kapalabhati) Cold exposure breathing protocols Movement-synchronized breathing patterns 	Sensory Stimulation <i>Nervous System Activation</i> <ol style="list-style-type: none"> Bright light therapy and phototherapy Textural stimulation and varied tactile input Temperature contrast and thermal stimulation Altering essential oils and aromatherapy Rhythmic music and auditory stimulation Tactile brushing and sensory activation Visual stimulation and color therapy 	Movement Activation <i>Building Capacity</i> <ol style="list-style-type: none"> Feldenkrais Method for gentle nervous system education Alexander Technique for postural awareness and energy Progressive cardiovascular exercise and endurance building Dance therapy with gradual energy increases Tai Chi and Qigong for gentle activation Aquatic therapy and water-based movement Therapeutic exercise and 	Cognitive Stimulation <i>Mental Activation</i> <ol style="list-style-type: none"> Engaging puzzles and cognitive challenges Creative activities and artistic expression Learning new skills and neuroplasticity activation Social interaction and conversational engagement Memory games and cognitive training Problem-solving and strategic thinking Curiosity-building and exploratory activities 	Social Connection & Co-regulation <i>External Energy Support</i> <ol style="list-style-type: none"> Safe social engagement and supportive relationships Group activities and community participation Animal-assisted therapy and pet interaction Therapeutic relationships and professional support Mentoring and guidance relationships Family connections and intergenerational support Cultural activities and ancestral practices 	Advanced Therapeutic Support <i>Long-Term Regulation</i> <ol style="list-style-type: none"> Somatic Experiencing adapted for activation and mobilization EMDR modified for hypoarousal and immobilization states Internal Family Systems for withdrawn and exiled parts Somatic psychotherapy with gentle activation focus Polyvagal-informed capacity building approaches Neurofeedback for arousal regulation and activation Ketamine-assisted therapy for treatment-resistant

- Nine-Field Overview:**
- Mind-Body Science (this visual)
 - Neuroscience & Psychophysiology
 - Developmental & Clinical Psychology
 - Trauma & Relational Systems
 - Systems & Complexity Sciences
 - Behaviour & Learning Sciences
 - Energetic & Field Sciences
 - Consciousness & Meaning
 - Applied Human Development

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4 Practitioners & Facilitators						
Medical Professionals <i>Clinical Foundation</i> <ol style="list-style-type: none"> Psychiatrists with trauma and nervous system specialization Physicians integrating nervous system approaches in practice Neurologists specializing in autonomic nervous system disorders Emergency medicine doctors with trauma-informed training Integrative medicine physicians using somatic approaches Pain management specialists with nervous system focus Family medicine doctors with mind-body training 	Mental Health Professionals <i>Psychological Expertise</i> <ol style="list-style-type: none"> Clinical psychologists w/ trauma and somatic specialisation Licensed clinical social workers with nervous system training Marriage and family therapists using attachment-based approaches Addiction counselors w/ trauma-informed & somatic methods Art/expressive arts therapists w/nervous system integration Neuropsychologists w/ brain-body connections training Positive psychology 	Somatic Therapy <i>Body-Mind Flow & Integration</i> <ol style="list-style-type: none"> Somatic Experiencing (Peter Levine training) Hakomi Method therapists and somatic bodyworkers Sensorimotor Psychotherapy practitioners (Pat Ogden approach) Body-Mind Centering practitioners Bioenergetic Analysis therapists and somatic healers Focusing-oriented therapists and felt-sense specialists Authentic Movement facilitators and dance therapists 	Trauma Informed Specialists <i>Specialised Interventions</i> <ol style="list-style-type: none"> EMDR therapists Complex trauma specialists using somatic modalities Brainspotting practitioners Internal Family Systems therapists with somatic integration Expressive arts therapists specializing in trauma recovery Play therapists using nervous system informed approaches Osteopathic practitioners specializing in nervous system health Couples therapists with attachment and co-regulation focus 	Movement & Bodywork <i>Specialists</i> <ol style="list-style-type: none"> Feldenkrais Method and movement educators Alexander Technique teachers and postural specialists Rolling and structural integration practitioners Craniosacral therapists with nervous system focus Massage therapists with trauma-informed training Osteopathic practitioners Chiropractic doctors with 	Breathwork & Regulation <i>Specialists</i> <ol style="list-style-type: none"> Breathwork facilitators and pranayama instructors Wim Hof Method instructors and cold exposure specialists Holotropic Breathwork practitioners and facilitators Coherent breathing and HRV biofeedback specialists Yoga therapists with nervous system training Meditation teachers with regulation focus MBSR instructors and mindfulness-based stress reduction specialists 	Coaches & Performance <i>Optimisation Focus</i> <ol style="list-style-type: none"> Executive coaches w/ nervous system, Co-Regulation training Performance coaches specializing in stress optimization Nervous System Informed Life coaches Nervous System Informed Business Leaders Athletic performance coaches with mind-body integration Relationship coaches with attachment and co-regulation focus Wellness coaches with

5 Applications & Contexts		
Self	Others Relational Applications	Systems & Structure
<ol style="list-style-type: none"> Mental health and emotional regulation Performance optimisation and flow states Stress management and resilience building Trauma recovery and healing Sleep quality and energy management Decision-making and intuition Physical health and chronic condition management Creative expression and artistic performance Learning enhancement and cognitive function Life transitions and major changes Personal development and self-awareness Spiritual growth and consciousness expansion 	<ol style="list-style-type: none"> Parenting - child development Couples therapy - relationship healing Family dynamics and intergenerational patterns Friendship and social connections Conflict resolution and communication Teaching and mentoring Community building and group dynamics Social skills and interpersonal effectiveness Empathy development and emotional attunement Leadership presence and influence 	<ol style="list-style-type: none"> Business Culture, Performance & Competitive Advantage Educational reform and trauma-informed schooling Healthcare system integration and patient-centered care Criminal justice reform Military and first responder resilience & PTSD prevention Community trauma healing and collective recovery Cultural healing and societal nervous system regulation Environmental crisis response and collective climate resilience

6 Measurement & Evaluation		
Physiological Objective Measures	Psychological Behavioural Measures	Self Monitoring Body-Mind Flow & Integration
<ol style="list-style-type: none"> HRV, EEG, hormone testing, autonomic function assessment Measurable biological indicators of nervous system state 	<ol style="list-style-type: none"> Standardized questionnaires, observation protocols, clinical interviews Professional assessment tools and diagnostic methods 	<ol style="list-style-type: none"> Daily tracking, subjective measures, personal awareness tools Individual self-assessment and progress monitoring

