

**KINESTHETIC ANATOMY AND BIOMECHANICS OF MOTION:
THE SPINE & TRUNK**
taught by Irene Dowd
Fall 2025

In this course we will review the anatomical bone structure, joint motion, muscles and potential actions of the spine/trunk. Focus will be on joint motion (kinematics) and on movement choreographies that engage all the muscles of the spine and trunk.

- *Emphasis will be especially on how each bone of pelvis, each vertebra, each rib, skull and bones of skull move at their various joints. We will locate each of these joints in our own body and visualize all the potential motion that can take place at each of these joints.
- *Learning a series of short movement sequences choreographed by Irene will not only give us a kinesthetic experience of all of our spine/trunk muscles, but can potentially enhance our dynamic stability, mobility, control, coordination, and readiness to move our spine/trunk in all directions - including our head, rib cage, pelvis.
- *We will consider such issues as hypermobility/hypermobility of spine, spine/pelvis asymmetries, functional postural concepts, etc. Common daily life and skilled activity challenges will be considered and addressed as time permits - potentially inducing the creation of some new training choreographies.

DURATION: 12 weeks

DATES: September 23 – December 9, 2024 (if needed, "make-up day" on Tuesday December 16)

TIME: TUESDAYS 2:30 - 4:00 pm

FEE: \$810 paid in advance, no refunds after the course has begun

LOCATION: NOHO Pilates @ 611 Broadway, Suite 608, NYC 10012 (at north-west corner of Broadway and Houston Streets) and on ZOOM

PRE-REGISTRATION AND PAYMENT ARE ESSENTIAL in order to receive handouts and zoom link:

Payment/registration must be made to: Stephen Williams: nohostudio@yahoo.com

For more information: call Irene Dowd at 917-710-7447 (8am -8pm) or email Irene at:

eidcas@gmail.com OR e-mail Stephen Williams at nohostudio@yahoo.com

If you sign up for this course, you will receive a **ZOOM link** at beginning of seminar that is usable for the entire course (Zoom recording can be viewed for 7 days after the class meeting)

NOTE: a hybrid course - you can attend in person physically &/or on Zoom or view the Zoom later - just let us know what you choose.

PAY FEE of \$810 to Stephen Williams with PayPal or Venmo. Contact Stephen Williams at nohostudio@yahoo.com and make your payment to him.

If you want to pay by check, write your check to Stephen Williams and mail to: **Noho Pilates, 611 Broadway, Suite 608, NYC 10012. Please make sure that you get your payment to him before the course begins so that he can send you the Zoom link, and the handouts in advance.**

weekly plan – subject to slight changes:

**#1 - SPINE AS A WHOLE & LOCATING EACH VERTEBRA; BODY SYSTEMS & TERMINOLOGY
REVIEW**

CHOREOGRAPHY TO MOVE SPINE IN ALL DIMENSIONS

#2 - BONY LANDMARKS OF PELVIS, MOVEMENTS WITHIN PELVIS

CHOREOGRAPHY FOR PELVIS

**#3 – BONY LANDMARKS OF LUMBAR SPINE, MECHANICS OF JOINT MOTION OF LOWER SPINE
CHOREOGRAPHY FOR LOWER TRUNK**

#4 - MUSCLES OF THE BACK

CHOREOGRAPHY FOR MUSCLES OF THE BACK

#5 - MUSCLES OF THE ABDOMINAL WALL
CHOREOGRAPHY FOR ABDOMINAL MUSCLES

#6 - ROLE OF TRUNK AND SPINE MUSCLES IN SUSTAINING VARIOUS LOWER SPINE
ORIENTATIONS & MOVEMENTS OF THE LOWER TRUNK – CONSIDERATION OF COMMON
MOVEMENT TRAINING PRACTICES AND WHAT THEY ACHIEVE;
ADAPTING CHOREOGRAPHIES TO EMPHASIZE ECCENTRIC CONTRACTION OF LOWER TRUNK
MUSCLES

#7 - BONY LANDMARKS, MUSCLES AND MOVEMENTS OF THORACIC SPINE & THORAX
CHOREOGRAPHY FOR THORACIC SPINE

#8 - MOVING THE VOLUME WITHIN THORAX: INTRODUCTION TO RESPIRATION

#9 - MUSCLES OF RESPIRATION, MUSCULAR PATTERNS INVOLVED IN BREATHING;
CHOREOGRAPHIES THAT MIGHT ASSIST IN REMOVING IMPEDIMENTS TO RESPIRATION

#10 - BONY LANDMARKS AND JOINTS OF THE SKULL & CERVICAL SPINE, MOVEMENTS OF THE
HEAD, JAW AND NECK; MECHANICS OF JOINT MOTION OF THE HEAD, UPPER SPINE &
TRUNK VISUALIZATIONS/PRACTICES THAT MIGHT ENHANCE ADAPTABILITY OF
MUSCLES OF FACIAL EXPRESSION, MOUTH, TONGUE, EYES, AND JAW

#11 - MUSCLES AND MOVEMENTS OF POSTERIOR NECK & UPPER THORACIC SPINE, MUSCLES
AND MOVEMENTS OF LATERAL AND ANTERIOR NECK AND UPPER THORACIC SPINE
CHOREOGRAPHIES TO ENGAGE ALL MUSCLES OF NECK AND THORACIC SPINE

#12 – REVIEW OF CHOREOGRAPHIES AND MOVEMENT PRACTICES, ADAPTING THEM TO
INDIVIDUAL WITH HYPERMOBILE JOINTS OR HYPOMOBILE JOINTS