TGM UNIT LESSON PLANS

Unit #1: Chapters 1 and 2

Introduction and Essentials of Movement

Unit Learning Objectives

- Define basic movement terms to describe and classify movement. *(See Terminology List)*
- Compare and contrast the differences between statics and dynamics, kinetics and kinematics.
- Experiment with key concepts of mobility, stability, balance, and coordination.
- Identify movement patterns and kinetic chains.
- Categorize and explain the purposes of the four main structures/components of the body essential for movement: connective tissue, joints, muscles, and nerves.
- Identify daily movement patterns that demonstrate balance, stability, and simultaneous and sequential movement.
- Survey components of everyday movement in today's world that effect optimization and movement functionality of the human body.

Class Equipment

- *Trail Guide to Movement:* Chapters 1 and 2
- PowerPoint slides: Chapters 1 and 2
- *Trail Guide to the Body* (current edition)

Terminology List

neuromyofascialskeletal system	posture	gait
kinesiology	anatomy	physiology
biomechanics	statics	dynamics
kinetics	kinematics	mobility
stability	balance	coordination
proportion	symmetry	compensation
simultaneous movement	sequential movement	kinetic chain
articular chain	myofascial chain	neural chain

Supplemental References/Resources

Website article: "Sitting Positions for Good Posture", Medical News Today, https://www.medicalnewstoday.com/articles/321863.php

Website article: "How Much Does Technology Mess with Physical Health", Digital Society, https://medium.com/digital-society/how-much-does-technology-mess-with-your-physical-health-f1d27f685283

Website article: "Technology Helps a Paralyzed Man Transform Thought into Movement", NPR, https://www.npr.org/sections/health-shots/2016/04/13/473821367/technology-helps-a-paralyzed-man-transform-thought-into-movement

Website article: "How Does Technology Impact Physical Activity Levels Among Students?", Medical News Bulletin, https://www.medicalnewsbulletin.com/technology-physical-activity-levels-students/

Lecture: What Is Kinesiology? What are the Essentials of Movement?

- Definition of kinesiology
- Introduction to the principles of statics and dynamics
    - Dynamics is divided into kinetics and kinematics
- Definitions of mobility, stability, balance, and coordination
- Simultaneous and sequential movement
- Movement patterns and kinetic chains
- Proportion, symmetry, and compensation
- Four key structures essential for movement
    - Connective tissue (framework for compression and tension)
    - Joints (articulation to allow for movement to occur at strategic points)
    - Muscles (motors creating motion)
    - Nerves (electrical system, directing the movement)
- Biomechanical principles and basic physics
    - Laws of motion
    - Influence of gravity, force, torque
    - Functional classifications with levers
- How it all works together
    - Posture
    - Gait

Movement Lab Activities

The first class session is a basic introduction to the principles of movement. The key objective is to start students thinking about all the components of human movement.

- *A Day in the Life of Movement Activity:*
  Break students up into groups. Have each group practice demonstrating the daily movement examples representing the concepts below:
    - Statics: *sitting meditation pose, mountain pose in yoga*
    - Dynamics: *jumping in place*
    - Balance: *standing on one foot*
    - Coordination
        - Simultaneous movement: *squat with weight*
        - Sequential movement: *pitcher throwing a baseball, soccer player shooting a goal*

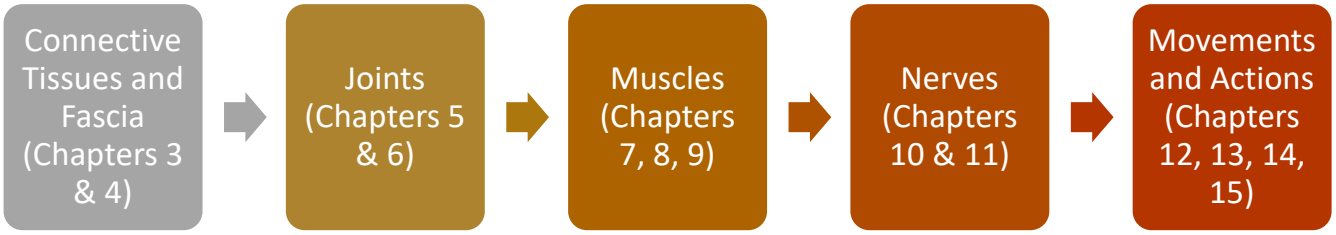
- Movement pattern/kinetic chain
    - Think of a daily activity and identify all the possible movement patterns and kinetic chain (e.g., vacuuming the carpet, carrying your backpack, eating your meal)

- *Mobility and Stability Activity:*
  Play a game of "Twister" or "Simon Says" that gives instructions for students to move into a pose that requires maintaining stability without breaking the pose and mobility.

- *Mobility in the 21st Century:*
  Review pages 10 and 11 in chapter 1 of TGM highlighting movement (or lack of it) in our modern world. Have a group discussion about the application of understanding human movement in one's daily work. You can use the supplemental resources to prompt discussion if needed. Ask students to consider their own movement patterns and habits. How can they create awareness in their clients/patients about how their habits and body usage impacts healthy form?

Closing Summary

When studying basic anatomy and physiology, we tend to view things as superficial layers first and then work in depth (e.g., skin, muscles, bones). With TGM, we will be building from the sources into how the movement is created as illustrated in this flow chart:



Appendix A: Alignment Chart

Chapter(s)/Unit Topics	Unit Level Objectives	Course Outcomes and Educational Alignment Standards	Instructional Materials and Activities	Suggested Assessment Indicators
Unit #1: 1.5 hours Chapters 1 & 2 Topic • Introduction to kinesiology and the essentials of movement terminology • Basic principles of statics and dynamics • Basic movement patterns and kinetic chains • Proportion, symmetry, and compensation	• Define basic movement terms to describe and classify movement. *(See Terminology List)* • Compare and contrast the differences between statics and dynamics, kinetics and kinematics. • Experiment with key concepts of mobility, stability, balance, and coordination. • Identify movement patterns and kinetic chains. • Categorize and explain the purposes of the four main structures/components of the body essential for movement: connective tissue, joints, muscles, and nerves. • Identify daily movement patterns that demonstrate balance, stability, and simultaneous and sequential movement. • Survey components of everyday movement in today's world that effect optimization and movement functionality of the human body.	TGM Course Outcomes #: 1, 2 MBLEx Content Area: Kinesiology (F) COMTA Competency Elements: 1.3. I. – Healthcare and Bodywork Terminology	TGM book Movement Lab Activities • Demonstrating movement terms • A Day in the Life of Movement group activity • Mobility and Stability activity • Mobility in 21st Century discussion	Exit quiz at the end of class period or drill at beginning of next class period using review questions at end of chapter

Appendix B: Entry Level Analysis Project (ELAP) Alignments for Massage Therapy Educators

The ELAP is an evidence-informed research project that was initiated by the Coalition of National Massage Therapy Organizations on March 2012. The primary outcome of this project was a detailed report containing course and hour recommendations and educational blueprints that focuses on defining the entry-level skills and knowledge required to practice massage therapy safely and competently. A general topical alignment table has been included below.

ELAP SUBJECT AREA	MAIN TOPIC HEADING	SUBTOPICS	UNIT & CHAPTER ALIGNMENTS
Massage Theory and Principles	Massage Benefits and Effects	• Types of benefits and effects • Physiological benefits	ALL
Massage Professional Practice	Personal Health, Body Mechanics, and Self Care	• Body mechanic principles	Unit 1: Chapter 2 Units 6A/6B: Chapters 12, 13, & 14
Anatomy and Physiology	Orientation to the Body	• Key terms and concepts • Movement/Action terminology (e.g. adduction) • Directional terminology (e.g., inferior) • Anatomical regions (e.g., crural) • Body systems (e.g. nervous system)	Unit 1: Chapters 1 & 2 Unit 3: Chapter 5
	Skeletal System	• Skeleton and bones • Joints	Unit 2: Chapter 4 Unit 3: Chapters 5 & 6
	Fascial System	• Structure and function of fascial systems • Fascial dysfunction	Unit 2: Chapters 3 & 4
	Muscular System	• Structure and function of muscle system • Muscle contractions	Unit 4: Chapters 7, 8, & 9