

CN3010

Caninology: The Dynamic Dog: Biomechanics and Gait Abnormalities

Duration: 4 days

**Lecturer: Dr Mila Speciani, DVM, EEBW®, CCBW®, GpCERT WVA & CPM,
CKTP, Expert in Homeopathy, Homotoxicology and Integrated Disciplines,
Doctor in Human Sport and Exercise Science**

Description

Prerequisites:

Participants must belong to one of the professions listed below:

- DVM
- CCBW ®
- Animal Physiotherapist
- Animal chiropractor
- Animal osteopath
- Students of the abovementioned disciplines
- Dog educators and trainers/instructors/athletes involved in dog sport disciplines

Course Objectives:

Students learn basic canine anatomy, palpation, and range of motion skills, conformation evaluation, static and movement analysis. Understanding structure and patterns of movement will enable students to visualize which joints, ligaments, tendons, and muscles are utilized during movement. In addition, students will learn to recognize gait abnormalities and will be taught basics of the lameness examination and specific musculoskeletal abnormalities. This knowledge base will enhance owners, trainers, caregivers, breeders, judges and canine body worker's skills.

Learning Outcomes:

After completing this course, the student will be able to

- know the footfall of the dog's in all performed gaits
- employ gait diagramming in their work program
- list the common conformation faults of the dogs
- list the main structures involved in locomotion
- employ the palpation skills required to locate surface anatomy to place markers for bone measurement, joint angle and inclination for conformation and gait assessment
- know the basic terminology used for biomechanics and canine locomotion

- know the history of canine biomechanics
- list the structure and the function of head, neck and tail
- know the protocol to analysis canine movement using high-speed and slow motion cinematography

Course Activities And Presentation:

This subject matter for this course is presented in a variety of mediums. Independent home study is required. The time required will vary on the student's comprehension level of veterinary anatomy and vocabulary. The classroom lecture portions are usually followed by lab practicals in the classroom and on the subject (in this case the dog). The classroom lecture may be supported by visual aids (slides, PowerPoint, model, specimen or overheads) and discussion. The lab practical vary depending on the topic and can be supported by templates, labeling sessions, gait analysis sessions, muscle and surface anatomy identification and practical hands-on. **Class**

Outline:

- Gait analysis and evaluation guideline
- Conformation evaluation
- Locating palpation points
- Causes and symptoms of the lame dog
- Subjective analysis of conformation: Limb deviations, rotations, and determination of symmetry
- Basic anatomy and terminology
- Injury and lameness prevention
- Defining and diagramming the basic gaits
- History of biomechanics
- Biomechanical techniques
- High-Speed and Slow Motion Cinematography
- Measuring dogs
- Structure, function and palpation of the forelimb and hind limbs
- Structure and function of the head, neck and tail
- Video problem solving and discussion
- Sports analysis/video presentations & problem-solving for various disciplines
- Comprehensive case studies

Text and Material Required:

Required Course Text: *What's Your Angle* by Helen Grinnell King

Course Handouts: provided by instructor

The instructor provides course handouts, but the participant will need to buy the book (*What's Your Angle: Understanding Angulation and Structure for the Performance Dog* <https://a.co/d/dRNh7eU>) and bring it to class.