

SCHOOL OF KINESIOLOGY AND HEALTH SCIENCE**THEORY AND METHODOLOGY OF TRAINING
HH KINE 3570 3.0 / S1 2013**

Course Director: Professor Dave Chambers
E-mail: dchamber@yorku.ca
Time & Location: Monday/Wednesday
1:30 pm – 4:30 pm
Stong College 302

Objectives:

1. To acquaint the students with the principles and theoretical basis of training.
2. To understand the basic concepts of planning and implementing strength and conditioning programs.
3. To become aware of the service publications, and certification offered by the National Strength and Conditioning Association and the Coaching Association of Canada.
4. To become familiar with books, periodicals, videos, DVS's and research related to scientific training methods.

Textbook: Baechle, T. and Earle, R. (2008) Essentials of Strength Training and Conditioning (3rd Edition). Champaign, IL: Human Kinetics Pub.

Recommended Readings: Bompa, T and Haff G. (2009) Periodization: Theory and Methodology of Training (5th Edition). Champaign, IL: Human Kinetics, Pub.
Chambers, D (2012). Coaching: The Art and The Science (2nd Edition) Toronto: York Publishing

Note re: Textbook

Essentials of Strength Training and Conditioning, is the primary resource for individuals preparing for the National Strength and Conditioning Association (NSCA) Certification for the Strength and Conditioning Specialist (CSCS).

Note: It is possible to write the challenge exam for NSCA Certification upon completion of KINE 3570 3.0.

Also NSCA publishes:

1. Strength and Conditioning Professional Journal
2. Research Journal of NSCA

For further information:

NSCA
1885 Bob Johnson Drive
Colorado Springs, CO 80906
Website: www.nscs-lift.org
E-mail: nscs@nscs-lift.org
Tel: 1-800-815-6826

Coaching Association of Canada
1600 James Naismith Drive
Gloucester, Ontario K1B 5N4

Course Evaluation:

Note: Tests are based on readings and lecture material.

Assignment:

Annual Planning Instrument		
Or		
Conditioning Training Observation and Analysis	15%	Due: Monday, June 3
Test #1	40%	Monday, May 27
Test #2	45%	Last day of class: Wednesday, June 12
Total	100%	

Note: Papers can be viewed but are not returned. Keep 2nd copy.

Late papers: 1 mark per day late deducted excluding Saturday and Sunday.

Course Content Order

- 1. Principles of Training**
Physiological Effects of Training
Textbook Chapter 5 / Page 96, Chapter 6 / Page 128
Coaching: The Art and Science, Page 129, 130
Video – *Never Look Back* – Florida State University
Video – *Functional Training Progressions*
- 2. Periodization**
Analyzing the Demands of the Sport
Coaching: The Art and Science: Part 3
Chapter 6: Periodization: Theory and Methodology of Training
Chapter 19 - Text
- 3. Talent Identification – Chambers**
Test Selection and Administration
Textbook Chapter 11, 12
Part 2: Coaching: The Art and Science
- 4. Resistance Training – Strength Power**
Theory: Textbook Chapter 1, 3 (part of), 5
Strength/Power: Textbook Chapter 14, 15
Strength for Sports: DVD
Advanced Strength Training: DVD
Power for Sport Performance: DVD
Explosive Lifting for Sport: DVD
Core Strength and Stabilization for Athletes: DVD
- 5. Plyometric Training**
Textbook Chapter 16
High Powered Plyometrics: DVD
- 6. Speed, Agility and Speed Endurance**
Textbook Chapter 17
Speed for Sport Performance: DVD
Developed Lateral Speed and Change of Direction: DVD
Training for Speed, Agility and Quickness: DVD
Drills and Exercises to Improve Static and Dynamic Balance: DVD

7. **Age and Sex Related Differences**
Textbook Chapter 7
8. **Energy Systems Training**
Theory: Chapters 2, 5 (part of), 6, 18
Prescriptions for Alactic, Lactic and Aerobic Training (Hand out)
Part 3. Coaching: The Art and Science
9. **Warm-up and Stretching**
Textbook Chapter 13
Flexibility for Sport and Fitness: DVD
Core Assessment and Training: DVD
10. **Fatigue, Over reaching, Overtraining, Detraining Rest and Recovery Strategies**
Textbook Chapter 5 (part of)
Rest and Recovery, Chapter 5, Theory and Methodology of Training.
Part 3. Coaching: The Art and Science
11. **Nutrition**
Textbook Chapter 10
Winning Sports Nutrition – University of Arizona: Video
12. **Performance Enhancing Substances**
Textbook Chapter 9
13. **Travel, Jetlag, Pollutants, Heat, Cold**
Part 3. Coaching: The Art and Science
14. **Psychology of Athletic Preparation and Performance**
Textbook Chapter 8 (if time permits)
Part 4. Coaching: The Art and Science

Guest Speaker

Professional Athletic Trainer

Readings:

Textbook

Chapter 1, 2

Chapter 3: Testosterone, Growth Hormone, Insulin Growth Factors (IGF), Cortisol

Chapter 5, 6, 7

Chapter 9 Steroids, HGH, EPO, Creatine, Caffeine, Insulin Like Growth Hormone (IGF-1)

Chapter 10

Chapter 11, 12 (Review – not covered in lectures)

Chapter 13-19

Chapter 8 (If time permits)

Reference Books

Chapter 5 Theory and Methodology of Training, Bompa and Haff (Covered in lectures)

Part 2, 3, 4 Coaching: The Art and Science, Chambers (Covered in lectures)