



Certified Personal Trainer Course Syllabus

Course Textbook: Howley, Edward T. and Thompson, Dixie L. 2017. *Fitness Professional's Handbook*. 7th Edition. Champaign, IL, Human Kinetics.

Course Description:

This course is designed for future fitness professionals who are interested in helping individuals, communities, and groups gain the benefits of participating in regular physical activity in a positive and safe environment. This course includes guidelines for laboratory testing used in a health and fitness setting and for exercise programming both in healthy populations and in populations with special needs.

Course Objectives: At the conclusion of this course, students will be able to do the following:

- Conduct and analyze a health screening interview.
- List risk factors for cardiovascular disease.
- Explain the ACSM/AHA Physical Activity and Public Health Guidelines.
- Classify bones by shape, and explain ossification and bone mineral density.
- Explain how bones and muscles work together to form a biomechanical lever system.
- Define torque, and explain how it varies through the joint range of motion.
- Describe anaerobic and aerobic energy pathways, and explain which substrates are recruited for exercise of varying intensity and duration.
- Define VO₂ max, and explain how it is used to determine exercise intensity.
- List the six essential nutrients, and explain the role of each in energy production, performance and health.
- Explain how nutrition and exercise influence body weight, and provide guidelines for a healthy and effective weight loss program.
- Develop and implement exercise programs for cardio respiratory and musculoskeletal fitness.
- Name groups that are considered special populations, and explain the precautions and recommendations for safe and effective fitness programming for each.
- Describe the phases of behavior change, and explain how they apply to beginning a fitness program.
- Discuss strategies for minimizing injury during exercise.
- Discuss liability and legal issues pertaining to fitness professionals.

W.I.T.S. is an approved CEU provider for the American Occupational Therapy Association (AOTA), National Certification Board for Therapeutic Massage & Bodywork (NCBTMB), and the International Association of Continuing Education and Training (IACET). The American Council on Education has recommended 3 undergraduate credits for this course when completed entirely.

"Things to Read"

Readings and outlines are from the Fitness Professionals Handbook 7th Edition.
 (You are responsible for the material in these chapters, so stay ahead and commit time each day)

Bold chapters represent they are used in both lecture and practical labs.

| Lecture | Lecture Topics | Chapters | Lab Topics and Activities | Chapters |
|---------|--|--|--|----------------------------------|
| 1 | Health, Fitness, Performance; Health Risk Appraisal; Functional Anatomy and Biomechanics | 1, 2 , 3 | Introduction; Health Screening, Record Keeping, Resting HR and BP, Submaximal Testing, Warm-Up | 2 , 6, 7, 26 |
| 2 | Functional Anatomy and Biomechanics; Exercise Physiology | 3 and 4 | Field Tests for CRF, Assessing Muscular Fitness, Assessing ROM | 7, 9, 10 |
| 3 | Nutrition, Rx for Weight Management, Rx for Cardiovascular Fitness | 5 , 11 , 12 | Assessing Body Composition and, Programming for Cardiovascular Fitness | 8 , 11 , 12 |
| 4 | Rx for Cardiovascular Fitness; Rx for Muscular Fitness, and Low Back Function, Exercise and Older Adults | 11 , 13 , 14 , 17 | Programming for Muscular Fitness: Machines; Alternative Resistance, Flexibility | 13 , 14 |
| 5 | Special Populations; Behavioral Change; Injury Prevention and Treatment; Legal Issues | 18, 19, 20, 23, 25, 26 | Programming for Muscular Fitness, Free Weights, Core Training, Case Studies | 13 , 14 |

Upon receiving your textbook, it is recommended that you read the following chapters to help better prepare yourself for the first day of class:

1, 2, 3, 6, 7 and 26