



**Location / Time:** LLHSLC 201 10:30am-11:20am

**Semester / Year:** Spring 2018

**Course Start / End Date:** January 9, 2018/April 26, 2018

**Professor Name:** Mrs. Rachael Nowell, M.S.

**Professor Email:** rnowell@trinitybiblecollege.edu

### **Course Description**

An exploration of fitness evaluation and exercise prescription. The course investigates the activities that promote cardiovascular endurance, flexibility, resistance training, and anaerobic fitness. Students must have a basic knowledge of Exercise Physiology before taking the course.

**Standards:** This course is standards-driven. That is, the text, activities, lectures, assignments, and assessments are all designed to meet certain standards established by the state of North Dakota ESPB and InTASC. These standards include:

**ESPB:**

**08025.6 Planning and Instruction** The program requires study of how to plan and implement a variety of developmentally appropriate instructional strategies to develop physically educated individuals, based on state and national standards, pedagogical knowledge and application.

**08025.7 Learner Assessment** The program requires study of assessment to foster physical, cognitive, social, emotional development of learners in physical activity, use of various forms of authentic and traditional assessment to determine achievement, provide feedback to students, and guide instruction.

**08025.9 Technology** The program requires study of current, appropriate instructional technologies to enhance learning and to enhance personal and professional productivity.

**InTASC:**

- **Standard 3: Learning Environments:** The teacher works with others to create environments that support individual and collaborative learning and that encourage positive social interaction, active engagement in learning, and self-motivation.

- **Standard 4:** Content Knowledge: The teacher understands the central concepts, tools of inquiry, and structures of the disciplines(s) he or she teaches and creates learning experiences that make these aspects of the discipline accessible and meaningful for learners to assure mastery of the content.
- **Standard 5:** Application of Content: The teacher understands how to connect concepts and use differing perspectives to engage learners in critical thinking, creativity, collaborative problem solving related to authentic local and global issues.
- **Standard 6:** Assessment: The teacher understands and uses multiple methods of assessment to engage learners in their own growth, to monitor learner progress, and to guide the teacher's and learner's decision making.
- **Standard 8:** Instructional Strategies: The teacher understands and uses a variety of instructional strategies to encourage learners to develop deep understanding of content areas and their connections, and to build skills to apply knowledge in meaningful ways.

## Course Objectives

The student will:

1. Apply scientific knowledge to train athletes and clients for the primary goals of improving athletic performance and fitness.
2. Learn how to demonstrate and teach proper exercise techniques.
3. Learn how to design and implement safe and effective strength training and conditioning and personal training programs.
4. Apply exercise prescription principles for training variation, injury prevention, and reconditioning.

## Institutional Mission Statement

Trinity Bible College & Graduate School is committed to training and educating people with theological reflection and missional passion, in order that people and communities everywhere will hear the good news of Jesus and see his love demonstrated.

## Spiritual Formation Statement

This course is intended to reflect sound and consistent practices that relate to biblical teaching regarding our health and development throughout participation in exercise and proper nutrition. Because our bodies belong to God, we must be committed to developing effective lifestyle habits. This is illustrated in 1 Corinthians 6:20

## Required Textbooks/Supplies

Heyward, Vivian & Gibson, Ann. Advanced Fitness Assessment and Exercise Prescription. 7th Edition. Champaign, IL: Human Kinetics, 2014

### Course Outline

1/9	Tuesday	Syllabus	
1/11	Thursday	Chapter 1—Physical Activity and Disease	
1/16	Tuesday	Chapter 2—Health and Lifestyle Evaluation	
1/18	Thursday	Chapter 2—Continued	
1/23	Tuesday	Chapter 3—Principles of Physical Fitness Testing	
1/25	Thursday	Chapter 3—Principles of Exercise Prescription	<b>Lab 1</b>
1/30	Tuesday	Chapter 4—Assessing Cardiorespiratory Fitness	
2/1	Thursday	Chapter 4—Continued	
2/6	Tuesday	<b>Labs 2/3</b>	
2/8	Thursday	<b>Exam 1</b>	
2/13	Tuesday	Chapter 5—Designing Aerobic Exercise Programs	<b>Project Part 1</b>
<b>Due</b>			
2/15	Thursday	Chapter 5—Continued	
2/20	Tuesday	Chapter 8—Assessing Body Composition	
2/22	Thursday	<b>Project Part 2 Due</b>	
2/27	Tuesday	Chapter 6—Assessing Muscular Fitness	
3/1	Thursday	Chapter 6— <b>Lab 4</b>	
3/5-3/9		Go Trip Week	
3/12-3/16		Spring Break	
3/20	Tuesday	Chapter 9—Body Composition Programs	
<b>3/22</b>	Thursday	Chapter 7—Designing Resistance Training Programs	

3/27	Tuesday	Chapter 7—Continued
3/29	Thursday	<b>Exam 2</b>
3/30 – 4/2		Easter Break
4/3	Tuesday	Fitness Gram DVD / Based on Chapter 9 and 7: In-Class project designing a weight gain/loss framework for two different individuals
4/5	Thursday	<b>Part 3 Project</b>
4/10	Tuesday	Chapter 10—Assessing Flexibility
4/12	Thursday	Chapter 10— <b>Labs 5 &amp; 6</b>
4/17	Tuesday	Chapter 11—Designing Stretching Programs
4/19	Thursday	Chapter 11—Pros of Flexibility Training
4/24	Tuesday	Chapter 12—Assessing Balance
4/26	Thursday	Chapter 12—Assessing Balance <b>Lab 7</b>
4/30-5/3		Finals Week
<b>5/1</b>	<b>Tuesday</b>	<b>Final Exam 10:30am</b>

## Methodology

Lecture  
 Discussion  
 Guest demonstrators  
 Various electronic media  
 Group activities

## Course Requirements

### Project Part 1: Health Screening and Evaluation (InTASC Standard 4, 08025.6, 08025.7)

- Data Collection
  - Students can either use their own information or a client.
  - Complete PAR-Q and medical history questionnaires, lifestyle questionnaire, medical clearance from physician (if needed), and informed consent. Include all forms at end of narrative.

- Measure your client's height, weight, and BP. Calculate and classify your client's BMI.
- Case Study Write-Up / Data Analysis
  - Client demographics: Describe age, gender, occupation, and stress level of your client.
  - Analysis of medical history: Describe any medical problems and special considerations (e.g., physical disabilities, medications).
  - Lifestyle profile: Evaluate each component, pinpointing potential problem areas.
    - Dietary considerations (e.g., snacks, salt use, foods high in saturated fat?)
    - Eating habits (frequency of meals, types of food, caloric intake)
    - Physical activity (how often? how much?) and physical activity interests
    - Smoking and drinking habits
    - Suggestions for modifying lifestyle behaviors
- Grading Rubric:
  - Data collection (4 or 5 forms) = 10 points
  - Data analysis = 10 points
  - Total = 20 points

**Project Part 2: Cardiorespiratory Fitness Assessment (InTASC Standard 3,5 08025.6, and 08025.7)**

- Field test
  - Explain why the field test was selected
  - Estimate the client's VO<sub>2</sub>max from the test results.
  - Show all calculations.
- Grading Rubric:
  - Field test data = 10 points
  - Test results and calculations = 10 points

**Project Part 3: Body Composition Assessment (InTASC Standard 5, 08025.6 and 08025.7)**

- List the following information for your client:
  - Age
  - Gender
  - Height
  - Weight
  - Healthy %BF (Table 8.1)
  - Body fatness classification
- Anthropometric Methods
  - Calculate your client's BMI and compare to BMI nomogram value. (Figure 8.13)
  - Classify your client's BMI value
  - Measure your client's waist and hip circumferences.
  - Calculate the WHR and compare to WHR nomogram value. (Figure 8.14)
  - Classify your client's WHR score.
- Grading Rubric:
  - Client information = 5 points

Anthropometric methods = 15 points

**Lab Assignments: (InTASC Standard 3,5,6,8 and 08025.7)**

- Each lab assignment will have a handout to record information and specify grading procedures.

**Lab Experience: (InTASC Standard 8 and 08025.9)**

- Students will spend a class time using and viewing various BMI assessment machines brought on site by our local Athletic Trainer.

**Tests:**

- If a student is absent on test day, he or she *may* lose 10% off the top of total point worth. Prior notice of absence should be given to the teacher and the reason for absence will be considered, as well as overall attendance for this class.

**Attendance**

Classes Per Week	2
Personal Absences Without Penalty	7
Personal Absences That May Incur Penalty	0-0
Total (Administrative and Personal) Absences Resulting in Failure	8

**Tardiness:** Students are considered late for class if they arrive after class has started. Three instances of tardiness will be charged as one absence. Similarly, except for emergencies, students may not leave class early without the prior approval of the instructor.

**Grading Procedure**

<b>A</b>	<b>100-94</b>	<b>C</b>	<b>76.99-73</b>
<b>A-</b>	<b>93.99-90</b>	<b>C-</b>	<b>72.99-70</b>
<b>B+</b>	<b>89.99-87</b>	<b>D+</b>	<b>69.99-67</b>
<b>B</b>	<b>86.99-83</b>	<b>D</b>	<b>66.99-63</b>
<b>B-</b>	<b>82.99-80</b>	<b>D-</b>	<b>62.99-60</b>
<b>C+</b>	<b>79.99-77</b>	<b>F</b>	<b>59.99-0</b>

**Course Breakdown**

Labs (7 x 10 pts.)

70 pts.

Lab Experience	50 pts.
Exam # 1	50 pts.
Three-Part Project	60 pts.
Exam # 2	50 pts.
Final	50 pts
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Total	330 pts.

## Bibliography

- Clark, Michael A. and Lucett, Scott C. *NASM Essentials of Sports Performance Training*. Lippincott Williams and Wilkins. 2010.
- Hamill, J & Knuzen, K. Biomechanical Basis of Human Movement. Lippincott, Williams and Wilkins (2010)
- Powers Scott. , & Howley Edward, (2012). *Exercise physiology: Theory and application to fitness & performance*. (8th ed.) New York, NY: McGraw-Hill.

## Addendums

*This syllabus is provided to students and participants for their general guidance only. It does not constitute a contract; either expresses or implied, and is subject to change without notice.*

### Trinity Bible College & Graduate School

50 S. 6<sup>th</sup> Avenue  
Ellendale, North Dakota 58436

Phone: 701.349.3621

Fax: 701.349.5786

[www.trinitybiblecollege.edu](http://www.trinitybiblecollege.edu)