

### **Praxis of Strength Training and Conditioning**

Meeting Days:	M, W, F	Instructor:	Jacob R. Goodin, Ph.D., CSCS
Meeting Times:	12:15p to 1:10p	Phone:	(619) 849-2254
Meeting Location(s):	KIN 1	Email:	<a href="mailto:jgoodin@pointloma.edu">jgoodin@pointloma.edu</a>
Final Exam:	Wed 12/12, 10:30a – 1:00p	Office Hours:	Tue-Fri, 2:30-4:00pm, KIN-6

#### PLNU Mission

To Teach ~ To Shape ~ To Send

Point Loma Nazarene University exists to provide higher education in a vital Christian community where minds are engaged and challenged, character is modeled and formed, and service becomes an expression of faith. Being of Wesleyan heritage, we aspire to be a learning community where grace is foundational, truth is pursued, and holiness is a way of life.

#### COURSE DESCRIPTION

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This course provides an in-depth study of the principles and techniques used to assess health and physical fitness and to design and prescribe exercise programs and physical activities. Concepts of exercise science will be applied to the development **and practice** of strength training and conditioning programs. Students will acquire the knowledge and skills necessary to sit for the NSCA's certification exam—certified strength and conditioning specialist (CSCS)—or another fitness related certification exam (e.g. ACSM, ACE, NASM). Furthermore, students will leave this class with the knowledge and tools necessary to safely and effectively plan and supervise evidence-based strength training and conditioning plans in a variety of settings.

Prerequisite: KIN 340.

#### COURSE LEARNING OUTCOMES

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- Demonstrate and analyze proper lifting, plyometric, and stretching technique.
- Explain how energy systems work in our body during exercise and sport.
- Assess and evaluate clients for various components of fitness.
- Design and implement safe and effective strength training, conditioning and personal training programs by applying exercise prescription principles for training variation, injury prevention, and reconditioning.
- Learn how to provide guidance regarding nutrition and performance-enhancing substances.
- Understand the similarities and differences between training for sport and training for fitness and health.

#### COURSE GRADING AND ASSIGNMENTS

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- Quizzes (24 @ 5pts each): 120pts
- Midterm: 100pts
- Final: 150pts
- Group Coaching Project: 100pts
- Annual Plan Project: 100pts
- Weightlifting/Powerlifting Videos: 100pts
- Labs (8 @ 10pts each): 80pts
- Attendance and Participation: 50pts

Total: 800pts

The final grade percentage will be rounded to the nearest percent with grades being recorded as follows:

Grade	Percent	Grade	Percent	Grade	Percent
A	93 - 100	B-	80 - 82.9	D+	67 - 69.9
A-	90 - 92.9	C+	77 - 79.9	D	63 - 66.9
B+	87 - 89.9	C	73 - 76.9	D-	60 - 62.9
B	83 - 86.9	C-	70 - 72.9	F	0 - 59.9

#### EDUCATIONAL OPPORTUNITIES

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Note: All assignments are to be submitted electronically via Canvas

- 1) **Annual Plan Project:** Student will develop a year-long sport-specific strength and conditioning program for a sport of their choice.
  - a) The program is to include:
    - i) Schedules for Off-Season, Pre-Season, In-Season, & Post-Season training, as well as Active Rest periods (i.e. the entire year)
    - ii) Movement drills specific to their sport for warm-up and skill development
    - iii) Weight training exercise program including
      - (1) Frequency
      - (2) Intensity
      - (3) Sets
      - (4) Reps
      - (5) Rest
    - iv) Energy Systems Training a.k.a Conditioning (Phosphagen, Glycolytic, Oxidative)
      - (1) Concise but thorough explanations of why certain exercises/movement drills were used to train a specific energy system
    - v) A minimum of three (3) reliable sources are to be referenced.
    - vi) This is not a group project. Copying-and-pasting, verbatim explanations, or duplicate programs will be viewed as plagiarism. However, group sharing of common methods, templates, and resources is encouraged.

- 2) **Weight Training Video and Analysis:** Each student will record themselves performing a variety of exercises from both front and side angles. After the recordings are acquired, each student will use iMovie (or similar technology) to produce a single video with clips for each lift using the two recording angles and end up with a side-by-side video of themselves to analyze for each of the lifts. Students will write a brief paragraph (2-4 sentences) analyzing each lift. The following lifts will be performed:
- i) Standard Lifts (3 repetitions)
    - (1) Barbell back squat (high bar)
    - (2) Barbell front squat
    - (3) Barbell SLDL
    - (4) Barbell bench press
    - (5) Barbell overhead press
    - (6) Barbell bent-over row
  - ii) Ballistic Lifts (1 repetition)
    - (1) Clean pull
    - (2) Snatch pull
    - (3) Power clean
    - (4) Power snatch
    - (5) Power jerk
- 3) **Chapter Quizzes:** Regular online chapter quizzes will be given to test knowledge of the readings in textbook. Quizzes must be completed *prior* to class for full credit.
- 4) **Midterm Exam:** The midterm exam will be designed to test the students' comprehension of material in the previous sections and new material presented via lectures and independent studying of the textbook. Questions will include: multiple choice, fill in the blank, matching, true/false, and short answer format.
- 5) **Final Exam:** The final exam will resemble an NSCA Practice Exam which is a comprehensive multiple-choice test including questions requiring video clips.
- 6) **Participation** (classroom and physical activities): Most class sessions will be held in places other than a classroom for the purpose of actually performing certain physical activities. These activities are designed to broaden the students' knowledge base and enhance learning and retention. Some concepts are better learned by doing. Students will be told in advance of upcoming class periods being activity days, and that proper attire (i.e. workout clothes and shoes) should be worn. (Examples of activity days are; lifting in the weight room, performing a plyometric workout, being exposed to different kinds of stretching techniques, completing a conditioning workout).
- 7) **Textbook Reading:** Regular reading assignments will be assigned from the textbook in order to come prepared for the upcoming classes and be able to participate in the discussions and perform well on quizzes.

- 8) **Labs:** There will be a short lab report due 1 week after each laboratory experience in the class. Most labs will consist of a specific topic we are discussing in class that week.
- 9) **Group Coaching Project:** Students will be put in groups of 3 to 4 members. Each group will choose 2 methods of exercising (powerlifting, weightlifting, bodybuilding, TRX, Crossfit, Kettlebells, Tabata, Battling Ropes, Bands, Chains etc.). Each group will learn relevant information about and become “experts” in their topics. Groups will have approximately half a class period (~40 mins.) to introduce the training methods to the class in a “hands-on” participation session, explain the pros and cons of why one would choose to use or not use this method of training, and what types of athletes would benefit from this type of training. Each person needs to do their fair share of the group’s work. This includes organization, set-up, speaking/teaching/coaching. This project is intended to give all class members a professional and correct representation of your group’s training methods, therefore extra effort needs to be given to preparation and mastery of the training method prior to your presentation days.

#### TENTATIVE COURSE SCHEDULE

Wk #	Date	Class Content	Assignment Due	Location
Wk 1	Tue, 8/28	Introduction/ Ch. 1: Structure & Function of Body Systems	Ch. 1 Quiz, Ch. 14 Quiz	Track
	Wed, 8/29	Ch. 14: Warm-Up & Flexibility Training		
	Fri, 8/31	Lab 1: Warm-Up & Flexibility Training		
Wk 2	Mon, 9/3	Labor Day	Ch. 2 Quiz Lab 1	
	Wed, 9/5	Ch. 2: Biomechanics of Resistance Training		
	Fri, 9/7	Ch. 2: Biomechanics of Resistance Training		
Wk 3	Mon, 9/10	Ch. 15: Exercise Technique for Free Weight & Machine Training	Ch. 15 Quiz	Weight Shed
	Wed, 9/12	Lab 2: Strength Training Technique Part 1		Weight Shed
	Fri, 9/14	Lab 2: Strength Training Technique Part 2		Weight Shed
Wk 4	Mon, 9/17	Ch. 3: Bioenergetics of Exercise & Training	Ch. 3 Quiz Lab 2	Weight Shed
	Wed, 9/19	Ch. 3: Bioenergetics of Exercise & Training		
	Fri, 9/21	<b>Group Coaching Project #1</b>		
Wk 5	Mon, 9/24	Ch. 4: Endocrine Responses to Resistance Exercise	Ch. 4 Quiz Ch. 7 Quiz	Weight Shed
	Wed, 9/26	Ch. 7: Age- & Sex-Related Differences & their Implications for Resistance Training		
	Fri, 9/28	<b>Group Coaching Project #2</b>		
Wk 6	Mon, 10/1	Ch. 5: Adaptations to Anaerobic Training Programs	Ch. 5 Quiz	Weight Shed
	Wed, 10/3	Ch. 5: Adaptations to Anaerobic Training Programs		
	Fri, 10/5	Lab 3: Weightlifting Technique Part 1		
Wk 7	Mon, 10/8	Lab 3: Weightlifting Technique Part 2	Ch. 17 Quiz	Weight Shed
	Wed, 10/10	Ch. 17: Program Design for Resistance Training		
	Fri, 10/12	Ch. 17: Program Design for Resistance Training		

Wk 8	Mon, 10/15	<b>Midterm</b>	Lab 3	
	Wed, 10/17	Ch. 12: Principles of Test Selection and Administration, Ch. 13: Administration, Scoring, and Interpretation of Selected Tests	Ch. 12 Quiz	
	Fri, 10/19	Fall Break		
Wk 9	Mon, 10/22	Lab 4: Admin. and Interpretation of Performance Tests Part 1		Track
	Wed, 10/24	Lab 4: Admin. and Interpretation of Performance Tests Part 2		Track
	Fri, 10/26	Ch. 6: Adaptations to Aerobic Endurance Training Programs	Ch. 6 Quiz	
Wk 10	Mon, 10/29	Ch. 16: Exercise Technique for Alternative Modes & Nontraditional Implement Training	Ch. 16 Quiz	
	Wed, 10/31	Lab 5: Alternative/Nontraditional RT	Lab 4	Weight Shed
	Fri, 11/2	Ch. 20: Program Design & Technique for Aerobic Endurance Training	Ch. 20 Quiz	
Wk 11	Mon, 11/5	Lab 6: Aerobic Training		Track
	Wed, 11/7	Ch. 18: Program Design & Technique for Plyometric Training	Ch. 18 Quiz, Lab 5	
	Fri, 11/9	Lab 7: Plyometric Training	Ch. 7 Quiz	Track
Wk 12	Mon, 11/12	Ch. 19: Program Design & Technique for Speed & Agility Training	Ch. 19 Quiz, Lab 6	
	Wed, 11/14	Lab 8: Speed & Agility Training		Track
	Fri, 11/16	Ch. 21: Periodization	Ch. 21 Quiz, Lab 7	
Wk 13	Mon, 11/19	Ch. 8: Psychology of Athletic Preparation & Performance	Ch. 8 Quiz, Weight Training Video & Analysis	
	Wed, 11/21	Thanksgiving		
	Fri, 11/23	Thanksgiving		
Wk 14	Mon, 11/26	Chs. 9 & 10: Nutrition	Chs. 9 & 10 Quiz, Lab 8	
	Wed, 11/28	Ch. 11: Performance-Enhancing Substances & Methods	Ch. 11 Quiz	
	Fri, 11/30	<b>Group Coaching Project #3</b>		Weight Shed
Wk 15	Mon, 12/3	Ch. 22: Rehabilitation & Reconditioning	Ch. 22 Quiz	
	Wed, 12/5	Chs 23 & 24: Facility Design, etc	Chs 23 & 24 Quiz	
	Fri, 12/7	<b>Group Coaching Project #4</b>		Weight Shed
Wk 16	Mon, 12/10	Final Exam		

## REQUIRED TEXTS AND RECOMMENDED RESOURCES

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### Required:

Haff, GG, and Triplett, NT, eds. *Essentials of Strength Training and Conditioning*, 4th ed. Champaign, IL: Human Kinetics, 2016

### Recommended:

Stone, Stone, and Sands. *Principles and Practice of Resistance Training*. Champaign, IL: Human Kinetics, 2007

Isratel, M., J. Hoffman, and C. W. Smith. *Scientific Principles of Strength Training*. Juggernaut Training Systems (2016).

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#### LATE AND INCOMPLETE ASSIGNMENTS

All assignments are to be submitted/turned in according to the specified time in Canvas. Late assignments/quizzes will be docked 20% per day, with assignments/quizzes submitted over 5 days late receiving a 0. Completes will only be assigned in extremely unusual circumstances.

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#### FINAL EXAMINATION POLICY

Successful completion of this class requires taking the final examination on its scheduled day, Wednesday 12/12, 10:30a – 1:00p. No requests for early examinations or alternative days will be approved.

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#### PLNU COPYRIGHT POLICY

Point Loma Nazarene University, as a non-profit educational institution, is entitled by law to use materials protected by the US Copyright Act for classroom education. Any use of those materials outside the class may violate the law.

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#### PLNU ACADEMIC HONESTY POLICY

Students should demonstrate academic honesty by doing original work and by giving appropriate credit to the ideas of others. Academic dishonesty is the act of presenting information, ideas, and/or concepts as one's own when in reality they are the results of another person's creativity and effort. A faculty member who believes a situation involving academic dishonesty has been detected may assign a failing grade for that assignment or examination, or, depending on the seriousness of the offense, for the course. Faculty should follow and students may appeal using the procedure in the university Catalog. See [Academic Policies](#) for definitions of kinds of academic dishonesty and for further policy information.

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#### PLNU ACADEMIC ACCOMODATIONS POLICY

If you have a diagnosed disability, please contact PLNU's Disability Resource Center (DRC) within the first two weeks of class to demonstrate need and to register for accommodation by phone at 619-849-2486 or by e-mail at [drc@pointloma.edu](mailto:drc@pointloma.edu). See [Disability Resource Center](#) for additional information.

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#### PLNU ATTENDANCE AND PARTICIPATION POLICY

Regular and punctual attendance at all classes is considered essential to optimum academic achievement. If the student is absent from more than 10 percent of class meetings, the faculty member can file a written report which may result in de-enrollment. If the absences exceed 20 percent, the student may be de-enrolled without notice until the university drop date or, after that date, receive the appropriate grade for their work and participation. See Academic Policies in the Undergraduate Academic Catalog.

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#### TUTORING

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The PLNU Tutorial Center is available free of charge for all current, undergraduate PLNU students. It offers tutoring for most subjects, as well as for general help with paper editing, study skills, etc. The Tutorial Center is located on the south end of Bond Academic Center, next to the Study Abroad offices. Tutoring is available by appointment only, may be arranged in person at the Tutorial Center, over the phone at (619) 849 2593, or via email at [TutorialServices@pointloma.edu](mailto:TutorialServices@pointloma.edu).

#### OFFICE HOURS

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It is important to me that I get to know each of you on an individual level, so stop by and say hi! My official office hours (listed above) are tentative—other meetings or appointments may arise—so schedule 24 hours in advance if you have pressing issues, but feel freedom to stop by whenever you'd like. I have an open door for questions, nerdy training theory discussions, or if you just need someone to listen and pray for you. I often won't have all the answers, but I'm positive we can figure it out together!