

Course title	Designing Training Programmes – Important Factors and Basic Principles			
Course code	TRAN121			
Course type	Lectures			
Level	Diploma			
Year / Semester	1 st Year / 2 nd Semester			
Teacher's name	Charalambos Assos			
ECTS	6	Lectures / week	3	Laboratories / week
Course purpose and objectives	The course aims to introduce students to the theory of coaching and to provide them with the basic knowledge for the design of fitness training programmes for athletes and trainees, with an emphasis on the design of resistance training programmes.			
Learning outcomes	<p>Upon the completion of the course, the students are expected to:</p> <p>Knowledge</p> <ol style="list-style-type: none"> 1. Describe the basic principles and laws of physical fitness development 2. Analyse and explain training load data 3. Describe the training principles of resistance training 4. Describe the different types of strength training 5. Explain the acute response <i>and</i> chronic adaptation the body makes in response to the training stimulus. <p>Skills</p> <ol style="list-style-type: none"> 6. Develop training programmes based on the periodization of the training process (e.g. linear, non-linear or in blocks) 7. Apply different types of strength in their training. <p>Responsibility and Autonomy</p> <ol style="list-style-type: none"> 8. Be able to design resistance training programmes according to a trainee's level, goals and specifics. 			
Prerequisites	TRAN106 Personal Training-Resistance Training	Required		
Course content	<ul style="list-style-type: none"> • Training and methodological concepts (Health, Exercise, Physical activity, Competitive, general and special exercises, etc.) • Basic principles of fitness development (The burden principle, The specialisation principle, The progressive principle, The FITT principle, The individuality principle, etc.) • Basic principles of resistance training 			

	<ul style="list-style-type: none"> • Types of Strength training (Isometric, Dynamic, variable resistance, Isokinetic, plyometric) • Biological laws of training (laws, exercise adaptation, performance) • Training programme planning stages (Assessment, goal setting, training planning, Program implementation, Reassessment) • Steps for designing resistance training programmes (needs analysis, exercise selection, training frequency, exercise sequence, resistance size and repetitions, training volume, rest) • Combining resistance training programmes with other training process (Aerobic exercise, plyometric exercise, speed training, speed endurance, etc.) • Differentiation of training - periodisation (periodic cycles, training periods, the seasons of a training year, etc. • Technical and simple resistance training systems • Methodology for designing strength programmes for women, children and older population.
<p>Teaching methodology</p>	<p>The content of the course is taught through lectures with the help of a computer, video projector, electronic presentations and multimedia and the use of a whiteboard. Active student participation is ensured through guided discussions.</p>
<p>Bibliography</p>	<p>Greek Bibliography</p> <ul style="list-style-type: none"> • Τερζής, Γ. (2022). <i>Μυϊκή Ενδυνάμωση [Muscle strength]</i>. Kallipos, Open Academic Editions. Ανακτήθηκε από https://dx.doi.org/10.57713/kallipos-26 • Αντωνιάδης, Κ. (2009). <i>Εισαγωγή στην άσκηση με βάρη [Introduction to weightlifting]</i>, Τελέθριον, ISBN 978-960-8410-54-1 • Φατούρος, Γ.Ι. & Χατζηνικολάου, Θ. (2012). <i>Προπόνηση με βάρη, διδασκαλία, ασφάλεια και οργάνωση ασκήσεων [Weight training, teaching safety and exercise management]</i>, ISBN 978-960-8410-97-8 • Delavier, F. (2012). <i>Προπόνηση για αύξηση της μυϊκής δύναμης : Λειτουργική ανατομική των μυών [Training for muscle strength: Functional anatomy of muscles]</i>. Εκδόσεις Π. Χ. Πασχαλίδης. 3^η Έκδοση. ISBN: 9789963744107 • Θεοδοσίου, Χ. (2010). <i>Ασκήσεις με Αντιστάσεις [Resistance training]</i>. Παρισιάνου. ISBN 978-960-394-453-9 <p>English Bibliography</p> <ul style="list-style-type: none"> • Wong, Del P., Tse, Michael A., Chin, June Lee-chuen, Carling, Christopher (2010). <i>Sport-specific Strength Training: Background, Rationale, and Program</i>. New York : Nova Science Publishers, Inc. EBSCOHost. • Kai, James T. (2010). <i>Strength Training : Types and Principles, Benefits and Concerns</i>. New York : Nova Science Publishers, Inc. EBSCOHost. • Fields, Zachary T. (2016). <i>Resistance Training : Principles, Adaptations and Health Effects</i>. Hauppauge, New York : Nova Science Publishers, Inc. EBSCOHost.



Assessment	<ul style="list-style-type: none">• Attendance and class participation: 10%• Intermediary written examination: 20%• Assignment: 20%• Final written examination: 50%
Language	Greek or English