

Course title	Specialised Personal Training – Resistance Training				
Course code	TRAN119				
Course type	Lectures and practical exercises				
Level	Diploma				
Year / Semester	1st Year / 2nd Semester				
Teacher's name	Costa- Ioannou Froso				
ECTS	6	Lectures / week	1	Laboratories / week	2
Course purpose and objectives	The purpose of the course is to provide the students with the knowledge, skills, and competences so that they are able to design and implement specialised protocols according to the specific needs and goals of the trainees. Furthermore, the purpose of the course is to teach the students how to correctly execute and deliver a training programme of free weights and pulleys.				
Learning outcomes	<p>Upon the completion of the course, the students are expected to:</p> <p>Knowledge</p> <ol style="list-style-type: none"> Explain the basic forms of strength and methods of improving them. Mention resistance training techniques and methods Mention the main characteristics of chronic diseases, such as diseases of the cardiovascular system, respiratory system, musculoskeletal system, etc. (causes, symptoms, intervention through exercise protocols) Explain various techniques that can assist with machines or free weights resistance training Comprehend the effect that the sudden stop of training can have on the various body tissues and human performance. <p>Skills</p> <ol style="list-style-type: none"> Apply the necessary fitness and health assessment metrics. Apply resistance training techniques and systems Perform, with proper technique, exercises with free weights and pulleys for the whole body Apply resistance training assistance techniques depending on the type of machine or free exercise <p>Competences</p> <ol style="list-style-type: none"> Identifying and correcting technical exercise mistakes 				
Prerequisites	TRAN106 Personal Training-Resistance Training	Required			

<p>Course content</p>	<ul style="list-style-type: none"> • Physical Performance and Health Tests: Organising, evaluating and interpreting the results • Strength training systems • Main forms of power and methods of improvement. • Adaptation of bones, muscle and tissue to exercise • Hormonal adaptations to resistance exercise • Special populations and exercise – chronic conditions (causes, symptoms, exercise adjustments based on guidelines of national organisations) • Resistance training for children, women and older population. • Practical application and technical analysis of exercises with free weights and pulleys (front & back sit-ups, high & low bar sit-ups, deadlifts and variations, barbell and dumbbell rows, bench presses and variations, pull-ups, chest/triceps dips, good morning exercise, hip thrusters, Bulgarian squat etc.) • Warming up and stretching • Training Assistance Technique with resistances and exercise adaptations • Sudden stop of exercise and its effect on the various body tissues and human performance
<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. The practical part of the course is carried out in an accredited gym centre.</p>
<p>Bibliography</p>	<p>Greek Bibliography</p> <ul style="list-style-type: none"> • Γεροδήμος, Β., Καρατράντου Κ. (2021). <i>Άσκηση για την Υγεία, Πρόληψη και αποκατάσταση [Exercise for Health, Prevention and Rehabilitation]</i>, Κωνσταντάρας, ISBN 978-960-608-051-7 • American College of Sports Medicine (2008). <i>Το εγχειρίδιο του προσωπικού γυμναστή [The personal trainer's handbook]</i>. 1^η Έκδοση. Αθλότυπο, ISBN 978-960-7378-82-8. • Delavier, F. (2012). <i>Προπόνηση για αύξηση της μυϊκής δύναμης : Λειτουργική ανατομική των μυών [Training to increase muscle strength : Functional anatomy of muscles]</i>. Εκδόσεις Π. Χ. Πασχαλίδης. 3^η Έκδοση. ISBN: 9789963744107 • Αντωνιάδης, Κ. (2009). <i>Εισαγωγή στην άσκηση με βάρη [Introduction to weight training]</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 <p>English Bibliography</p> <ul style="list-style-type: none"> • Bryant, C. X., and Green, D. J. (2010). <i>ACE Personal trainer manual: The ultimate resource for fitness professionals</i>. 4th Edition. American Council on Exercise. ISBN: 9781890720292



	<ul style="list-style-type: none">American College of Sports Medicine (2018). <i>ACSM's Resources for the Personal Trainer</i>. 5th Edition. ISBN: 978-1496322890.
Assessment	<ul style="list-style-type: none">Attendance and class participation: 10%Intermediary practical examination: 20%Final practical examination: 30%Final written examination: 40%
Language	Greek or English