



FIELD OF STUDY: DANCE IN PHYSICAL EDUCATION LIST OF SUBJECTS FOR <u>WINTER OR SUMMER SEMESTER 2024/2025</u>

No.	SUBJECT (each of 15 hours)	HOURS/ ECTS	FORM OF PASSING
01-T-1-ER-01	Contemporary Dance (Taniec Współczesny)	15/4	Pass
01-T-1-ER-02	Ballet Dance (Podstawy Tańca Klasycznego)	15/4	Pass
01-T-1-ER-03	Improvisation (Improwizacja)	15/4	Pass
01-T-1-ER-04	Etude – Short Forms of Dance Presentation (Etiuda)	15/4	Pass
01-T-1-ER-05	Dance Composition (Kompozycja Tańca)	15/4	Pass
01-T-1-ER-06	Dance Theater (Teatr Tańca)	15/4	Pass
01-T-1-ER-07	Dance Theory (Teoria Tańca - Choreologia)	15/4	Pass
01-T-1-ER-08	Repertoire (Repertuar)	15/4	Pass
01-T-1-ER-09	Modern Dance Techniques (Techniki Modern)	15/4	Pass
01-T-1-ER-10	Barre au sol	15/4	Pass
01-T-1-ER-11	Art Therapy Workshop (Elementy Arteterapii)	15/4	Pass
01-T-1-ER-12	Dance Therapy Elements - introduction (Elementy Terapii Tańcem - wprowadzenie)	15/4	Pass
01-T-1-ER-13	Yoga	15/4	Pass
01-T-1-ER-14	Climbing (Wspinaczka)	15/4	Pass
01-T-1-ER-15	Kids and Youth Sport (an introduction to the bio-banding concept based on the individualization of biological development and optimization of the training proces) Sport Dzieci i Młodzieży (wprowadzenie do koncepcji bio-banding w oparciu o indywidualizację rozwoju biologicznego i optymalizację procesu treningowego)	15/4	Work
02-FT-1-ER-14	Motor Control (Sterowanie Ruchem)	25/5	Exam

01-WF-1-ER-10	General Physiology (Fizjologia Ogólna)	15/4	Exam
01-WF-1-ER-08	Exercise Physiology (Fizjologia Wysiłkowa)	15/4	Exam
01-WF-1-ER-01	Theory and Methodology of Sports (Teoria i Metodyka Treningu Sportowego)	20/5	Pass
01-WF-1-ER-28	Biomechanics (Biomechanika)	15/4	Exam
01-WF-1-ER-26	Health Education (Wychowanie Zdrowotne)	15/4	Exam
01-WF-1-ER-02	Didactics of Teaching and Learning Physical Education (Dydaktyka Wychowania Fizycznego)	20/5	Pass
01-WF-1-ER-03	Multicultural Games in Practice (Gry Różnych Kultur - Zajęcia Praktyczne)	20/5	Pass
02-FT-1-ER-09	Adapted Physical Activity of Disabled (Aktywność Fiz. Osób Niepełnosprawnych)	15/3	Pass
02-FT-1-ER-10	Sherborne Developmental Movement (Metoda Ruchu Rozwijającego Weroniki Sherborne)	15/3	Exam
02-FT-1-ER-08	Nutrition in Diseases of Civilization (Żywienie w Chorobach Cywilizacyjnych)	15/3	Pass
02-DT-1-ER-09	Vegetarian Food and Meals in the Prevention and Treatment of Diseases (Potrawy i Posiłki Wegetariańskie w Profilaktyce i Leczeniu Chorób)	15/3	Pass
01-TR-1-ER-06	Sociology of Leisure (Socjologia Czasu Wolnego)	15/4	Work
01-WF-1-ER-23	The Personality Disorders and Interpersonal Relations (Zaburzenia Osobowości a Relacje Interpersonalne)	20/5	Pass
01-TR-1-ER-08	Cross-cultural Communication (Komunikacja Międzykulturowa) obligatory classes (common with Polish students)	15/4	Work
01-WF-1-ER-18	Tennis (Tenis)	15/4	Pass
01-TR-1-ER-05	Nordic Walking	15/4	Work

Floorwork in Release Technique (Floorwork in Release)	work 15/4	Work
Training for Health: Fascia Somatic Experiance (Trening Zdrowotny: Praca : Powięzią)	20/4 z	Work
Advanced Methods in Nutritional Evalu and Body Composition Assessment (Zaawansowane Metody Oceny Stanu Odżywienia i Składu ciała)	lation 15/4	Pass

OBLIGATIONS

Classes for ERASMUS Incoming Students

All Incoming Students are obliged to respect the following rules:

- Students should establish/update the list of classes/lectures to attend (learning agreements) as soon as possible (within one month of their arrival to Poznań).
 Student must not make changes in this document during the semester or shortly before the exams because it is the basis for preparation of an Exam Card.
- Student must not stop attending classes/lectures during the course. Institutional and Departmental Coordinator and teacher responsible for it should be informed earlier.
- 3. Students should come to classes run by Polish teachers on time.
- Within every chosen course an Erasmus Student has the maximum of 15 class-hours of lectures (in English) and, besides that, participates in some practical classes together with the Polish students. We offer a module of subjects in English with our academic teachers who are responsible for the subject and are obliged to do their best to help students. The module is based on proposals from incoming students (their Learning Agreements). Whether a course will be offered in English is subject to student demand (min. 50% of incoming students). For financial reasons we can offer a MAXIMUM of 14 subjects per semester from each faculty and 5 subject for physiotherapy students (no more).
- 5. In order to receive credits for the courses an Erasmus Student should see the teachers and present the Exams Card available from the Institutional Coordinator at the Erasmus+ Programme Office. This form is the basis for the preparation of the Transcript of Records which will be sent directly to the coordinator at the partner institution not earlier than one month after the end of semester.
- In case of any problems an Erasmus Student should immediately contact his/her Polish partner-student, the Institutional or Departmental Coordinator.
- According to the Bilateral Agreement signed with your university, the IRO will confirm the real time of your study only.

Subject	TANIEC WSPÓŁCZESNY
	CONTEMPORARY DANCE
Unit of AWF	Zakład Tańca / Department of Dance
Teacher's name	Agnieszka Doberska, Paweł Malicki, Paulina Wycichowska
ECTS points	4
Number of hours	15
Methods of estimation	 Current assessment of student's activity during the class. Assessment of knowledge of the given dance material and the rules for its implementation. Assessment of practical skills acquired during the class.
Effects/results of education	 Student knows the technique of contemporary dance forms. Student knows how to improve motility of the body and how to efficiently use motional capabilities of the body in reference to kinesiology and functional anatomy. Student wields the body as an instrument of the movement that is a dynamic form of expression in time and space. He performs a direct and complete statement using movement vocabulary. Student demonstrates basic knowledge in the range of concepts such as: embodied knowledge, increased consciousness, deepened concentration, energy, intensity, clarity and organic constitution of the movement. Student is fluent in recognizing, reproducing and remembering movement material.
Topics of the classes	 Body conditioning: warming up, strengthening, stretching and shaping the muscles, increasing the range of movement in the joints of the body. Awareness of the space in the body and three dimensional body movement in reference to space, awareness of the rotation in the joints. Stability in the body through tension/extension/release playfull field. Practicing concepts such us: awareness of the weight of the pelvis and other parts of the body, off balance, spiral movement of the body, movement's circular trajectory of the body. Oppositions in the movement of the body and body parts, multidirectional movement of the body, arch and curve as a part of circular trajectory of the movement.
Literature	Franklin Eric N. "Conditioning for dance / Training for peak performance in all dance forms" Human Kinetics, 2004 Franklin Eric N. "Dynamic alignment through imagery" Kined, 2014 Barba Eugenio, Savarese Nicola, "A Dictionary of Theatre Anthropology: The Secret Art of the Performer" Taylor & Francis Ltd., 2005

Subject	PODSTAWY TAŃCA KLASYCZNEGO
	BALLET DANCE
Unit of AWF	Zakład Tańca / Department of Dance
Teacher's name	Alfredo Garcia Gonzalez
ECTS points	4
Number of hours	15
	The knowledge is presented in a form of workshop of practical
Methods of estimation	experiments involving individual and group work.
Effects/results of education	This class it is made for students with or without knowledge of
	Ballet.
	The student will learn the wording that are use for ballet dancers.
	You will learn the proper posture and how it can influence in your

Barre exercise

Topics of the classes

Centre exercise

Moving in the space: jumps, turns, allegro

We will create a sequence of exercises to be done during the semester

	IMPROWIZACJA TAŃCA Z ELEMENTAMI IMPROWIZACJI W KONTAKCIE Z PARTNEREM	
Subject	DANCE IMPROVISATION WITH ELEMENTS OF CONTACT IMPROVISATION	
Unit of AWF	Zakład Tańca / Department of Dance	
Teacher's name	Paulina Wycichowska, Agnieszka Doberska, Paweł Malicki	
ECTS points	4	
Number of hours	15	
	1. Assessment of the performance of tasks and dance sequences prepared by students.	
Methods of estimation	2. Assessment of the level of understanding of knowledge.	
	3. Assessment of the level of acquisition of knowledge and skills.	
Effects/results of education	 Student identifies, performs and creates various movement elements. Student builds movement sequences based on improvisation and contact improvisation methods. Student understands the body as an instrument of expression using the techniques of improvisation and contact improvisation with particular emphasis on the sensation of the human body in motion and its creative potential. Student knows and uses embodied techniques in conjunction with contemporary dance techniques as well as other dance techniques and styles. Student understands dance improvisation as a way to create meanings and artistic expressions using improvisation techniques. 	
Topics of the classes	 Practical tasks developing the non-verbal language of the body's expression and learning the techniques of improvisation and contact improvisation. Analytical tasks regarding contemporary dance techniques and other motion techniques that enable to understand the dynamic and correct body posture while performing various movement qualities in improvisation and contact improvisation Tasks focused on the research developing the ability to search for new opportunities and qualities of the movement. Improvisation tasks that enable to discover new possibilities and movement solution enriching skills such as: dialogue with your own body, critical thinking, observation of oneself and others in terms of movement motility, differences and similarities in the process of creating movement improvisations. 	

E. N. Franklin, Dynamic Alignment Through Imagery, Human Kinetics Europe, 1996

E. Lucille, D. Perkins, Modern Dance in Physical Education

Lynne Anne Blom, L. Tarin Chaplin, The Moment Of Movement: Dance Improvisation, University of Pittsburgh Pre, 1988

Daniel Nagrin, Dance and the Specific Image: Improvisation, University of Pittsburgh Pre, 2014

B. Haselbach, Improvisation, Dance, Movement, Magnamusic-Baton, 1981

Cheryl Pallant, Contact Improvisation: An Introduction to a Vitalizing Dance Form, McFarland, 2006

Cynthia J. Novack, Sharing the Dance: Contact Improvisation and American Culture, Univ of Wisconsin Press, 1990

	ETIUDA
Subject	ETUDE – SHORT DANCE COMPOSITION
Unit of AWF	Zakład Tańca / Department of Dance
Teacher's name	Agnieszka Doberska, Paulina Wycichowska Paweł Malicki, Andrzej Adamczak
ECTS points	4
Number of hours	15
Methods of estimation	 Assessment of the performance of tasks and dance sequences prepared by students. Assessment of the level of understanding of knowledge. Assessment of the level of acquisition of knowledge and skills.
Effects/results of education	 Student knows how to reproduce short dance phrases and built his/her own dance variation on a theme. Student knows how to built dance etude constructed from short dance phrases. Student knows how to use dance technique and vocabulary to create his own dance phrases and variations on a theme. Student develops skills such us: awareness of the body weight, awareness of the partner's presence in various dance structures. Student knows how to recognise and challenge his/her kinesphere and the kinesphere of the partner.
Topics of the classes	 Strengthening through the series of exercises in a horizontal plane as a preparation for performing tasks and dance etudes. Introduction of an idea "leaning no pushing" with the weight of the body in partnering and in creating dance etude. Creation and reconstruction of the dance structures in order to design new dance etude. Introduction to the term "kinesphere".
Literature	Performance Analysis An Introductory coursebook / Colin Counsell and Laurie Wolf, Routledge, 2001 Perform or else: from discipline to performance / Jon McKenzie; Routledge; 2001 Exhausting Dance: Performance and the politics of movement / Andre Lepecki, Routledge; 2006

Subject	KOMPOZYCJA TAŃCA
Jubject	DANCE COMPOSITION
Unit of AWF	Zakład Tańca / Department of Dance
Teacher's name	Paulina Wycichowska, MA
ECTS points	4
Number of hours	15
Methods of estimation	The knowledge is presented in a form of short lectures alternated by practical experiments involving individual and group movement work.
Effects/results of education	Dance Composition subject is designed to provide a student with basic information about composing dance structures and phrases. The aim of the subject is to prepare a student for creative and collaborative work with a choreographer as well as composing articulate and expressive dance phrases on his own.
Topics of the classes	 Main topics of study: Introduction to dance composition: practical construction within already known dance styles, techniques and conventions. Introducing choreology and dance history knowledge into dance composition. Preparation for creative collaboration as dance artist and taking a role as a choreographer. Movement structures as important building elements of dance. Components of dance piece. Individual work on preparation and presentation of solo piece of chosen theme. Exercises: Main structures of creative approach to composition. Means of expression in performance. Improvisation as creative method in composition: space, time and energy factors. Relationships between performers, objects and props

Humphrey Doris, The Art of Making Dances, Grove/ Atlantic, 1959. Laban Rudolf, Mastery of Movement, wydanie czwarte, edited by Lisa Ullman, Northcote House Publishers Ltd., London 1980. Stodelle Ernestine, The Dance Technique of Doris Humphrey and Its Creative Potential, Dance Books LTD, London 1979.

Subject	TEATR TAŃCA
Jubject	DANCE THEATER
Unit of AWF	Zakład Tańca / Department of Dance
Teacher's name	Paulina Wycichowska, MA
ECTS points	4
Number of hours	15
Methods of estimation	The knowledge is presented in a form of lecture alternated by practical experiments involving individual and group movement work.
Effects/results of education	Dance Theater subject is designed to provide a student with basic information about dance and choreography practices in dance theatre genre. The aim of the subject is to prepare a student for creative and collaborative work with a choreographer as well as composing articulate and expressive dance statements on his own in relation to his acquired knowledge of composition, choreology and various conventions and styles of dance.
Topics of the classes	Main topics of study: - Introduction to dance theatre genre: its characteristics and leading figures: Mary Wigman, Kurt Jooss, Pina Bausch, Johann Kresnik. - Introducing choreology and dance history knowledge as well as other art forms into dance theatre creation. - Choreographic tools in dance theatre: method of preparing creative process in collaboration with performers; the use of their improvisational skills. - Dramaturgy as important factor in dance theatre creation. Components of dance theatre piece: relationship with music, space, stage set, architecture, video projection and interaction with the audience and new media. - Group work on preparation and presentation of short dance theatre piece of chosen theme. Exercises: - Movement intention tasks. Speech and body symbolism in dance theatre. Emotions and archetypical signals. - Improvisation as creative method in dance theatre: space, time and energy factors, alternation of formal and everyday movement. - Relationships between performers, objects and props present in dance theatre composition. - Connecting speech, singing and movement.

 Process of preparation of short group dance theatre piece.
--

Literature

Grotowski J., Towards a Poor Theatre, Routledge, UK 2002 Servos N., Pina Bausch Dance Theatre, K Kieser Verlag, Germany 2008

Subject	TEORIA TAŃCA
	DANCE THEORY
Unit of AWF	Zakład Tańca / Department of Dance
Teacher's name	Paulina Wycichowska, MA
ECTS points	4
Number of hours	15
Methods of estimation	The knowledge is presented in a form of short lectures alternated by practical experiments involving individual and group movement work.
Effects/results of education	Dance Theory subject is designed to provide a student with basic information about choreology and its history, methods of examination and study. The aim of the subject is to develop student's awareness of body and movement as well as observational skills. This knowledge and skills are to be obtained through reference to structural model of choreological analysis of movement based on Rudolf Laban's theory, which can be useful for any dancer, dance teacher, choreographer or dance/movement therapist.
Topics of the classes	 Main topics of study: Introduction to dance theory: presentation of dance as a field of study in relationship to history, anthropology and aesthetics. Rudolph Laban, his work and influence on the dance development. Choreological structural model for movement and dance analysis. Movement structures as a building elements of dance. Components of dance piece. Labanotation – introduction to dance notation. Exercises: Signals of non-verbal communication, everyday movement and formal, dance movement. Dynamics of movement: its rhythm, quality and phrasing. Movement in spatial context: direction, size, level, dimension, plane, axis and shape. Dance relationships, intention and context. Movement material transformation using choreological structures in practice. Choreologcal tools for dancer, dance teacher, choreographer and dance/movement therapist.
Literature	Laban Rudolf, Mastery of Movement, edited by Lisa Ullman, Northcote House Publishers Ltd., London 1980.

Subject	REPERTUAR
Subject	REPERTOIRE
Unit of AWF	Zakład Tańca / Department of Dance
Teacher's name	Agnieszka Doberska, Paulina Wycichowska, Paweł Malicki, Andrzej Adamczak
ECTS points	4
Number of hours	15
Methods of estimation	 Current assessment of student's activity during the class Assessment of knowledge of the given dance material and the rules for its implementation. Assessment of practical skills acquired during the class.
Effects/results of education	 Student is introduced to the several choreographic works of artists that worked with the dance department in The Poznan University of Physical Education. Student learns parts of the repertoire of chosen choreographers.
Topics of the classes	 Each class deals with the material and concept of the certain choreography that is taught to students by the staff member of the dance department. Choreography is introduced by the teacher. Video projection of the chosen choreography is given only to show the original result of the artist's work not for the working process with students.
Literature	1. "Pina Bausch: Tanztheater" Norbert Servos, Gert Weigelt; Kieser Verlag; 2012

Subject	TECHNIKI MODERN
	MODERN DANCE TECHNIQUES
Unit of AWF	Zakład Tańca / Department of Dance
Teacher's name	Paulina Wycichowska, MA
ECTS points	4
Number of hours	15
Methods of estimation	Physical practice: floorwork, standing, travelling and jumping exercises.
Effects/results of education	Modern Dance Technique subject is designed to provide a student with basic information about pioneering dance techniques created by Martha Graham, Merce Cunningham and José Limón. The class takes form of physical practice of main concepts of the mentioned techniques. Given exercises are inspired by original techniques but also developed further to serve contemporary dance purposes.
Topics of the classes	Main topics of study and exercise: - Introduction to Martha Graham technique: floorwork, standing and travelling exercises. - Introduction to Merce Cunningham technique: standing, travelling and jumping exercises. - Introduction to José Limón technique: standing, travelling and jumping exercises.
Literature	Freedman Russel, Martha Graham a Dancer's Life, Clarion Books, New York 1998. Horosko Marian, Martha Graham: The Evolution of Her Dance Theory and Training, University Press of Florida, 2002 Dunbar June, Jose Limon: An Artist Re-viewed (Choreography and Dance Studies Series), Routledge, 2002

Subject	BARRE AU SOL
	BARRE AU SOL
Unit of AWF	Zakład Tańca / Department of Dance
Teacher's name	Alfredo Garcia Gonzalez
ECTS points	4
Number of hours	15
Methods of estimation	The knowledge is presented in a form of workshop of practical experiments involving individual and group work.
Effects/results of education	The purpose of this class is to work on stretching and strengthening our body. We bring the exercise that we do at the barre down to the floor. The student will learn how to be align from head to toes. The strength of the core Flexibility.
Topics of the classes	Warm Up Floor work exercises We create few exercises for the students so you can repeat and learn them property

Subject -	ELEMENTY ARTETERAPII
	ART THERAPY WORKSHOP
Unit of AWF	Zakład Tańca / Department of Dance
Teacher's name	Paulina Wycichowska, MA
ECTS points	4
Number of hours	15
Methods of estimation	The knowledge is presented in a form of workshops: practical experiments involving individual and group work.
Effects/results of education	Art Therapy Workshop is designed to provide a student with basic experience of various techniques of art therapy. The aim of the subject is to prepare a student for creative and collaborative work through experience of music and visual arts.
Topics of the classes	Main topics of study: - Introduction to art therapy: art as a means of maintaining wellbeing. - Concept of creativity, its measurement and development. - Strategies of stress management. - Introduction to creative writing. - Introduction to music therapy. - Introduction to drawing, painting & collage therapy. - Introduction to photography therapy. Exercises: - Reflection on concepts: "Art" and "Artist". - Training creativity: associations, metaphore, convergent and divergent thinking, lateral thinking. - Creating works involving music, drawing, painting, collage and photography. - Reflection on the works.
Recommended literature	Rubin Judith A., Introduction to Art Therapy: Sources and Resources, Routledge 2010. Malchiodi Cathy A., Handbook of Art Therapy, Guilford Press 2003.

Subject -	ELEMENTY TERAPII TAŃCEM - WPROWADZENIE
	DANCE THERAPY ELEMENTS - INTRODUCTION
Unit of AWF	Zakład Tańca / Department of Dance
Teacher's name	Paulina Wycichowska, MA, Justyna Torłop-Bajew, MA
ECTS points	4
Number of hours	15
Methods of estimation	The knowledge is presented in a form of workshop of practical experiments involving individual and group work.
Effects/results of education	Dance Therapy Elements subject is designed to provide a student with basic experience of various techniques of dance therapy. The aim of the subject is to prepare a student for creative and collaborative work through experience of dance therapy elements in workshop.
Topics of the classes	Main topics of study: Introduction to dance therapy: concept of "dance". Potential effects of dance therapy. The healing and developmental assets of dance therapy. Introduction to dance therapy LMA — Laban Movement Analysis System. Introduction to dance therapy - important influences: Irmgard Bartnieff, Mary Chace, Anna Halprin. Exercises: Laban - Bartenieff Movement Fundamentals. Exploring body, shape, space and dynamics movement structures Mirroring and synchronised movement. Reflection on the processes.
Recommended literature	Bartenieff Irmgard, Body Movement – Coping With Environment, Routledge 1980. Dance Movement Therapy: Theory and Practice, edited by Helen Payne, Routledge 1992.

YOGA
THE BREATH IN CONNECTION WITH PERFORMED ASANAS.
Zakład Tańca / Department of Dance
Andrzej Adamczak
4
15
 Introduction to yoga, Concentration on the breath in connection with performed asanas. How to use muscles in yoga positions.
 Student knows the basics of yoga's asana. Student knows how to use the breath when correctly performing asanas. Student can perform strengthening and stretching exercises.
 Teaching selected asanas. Using the breath correctly. Teaching the exact exercise of individual asanas.

Recommended literature

Subject	WSPINACZKA SPORTOWA
	CLIMBING
Unit of AWF	Department of Physical Education and Lifelong Sports / Zakład Wychowania Fizycznego i Sportów Całego Życia
Teacher's name	Jacek Tarnas, PhD
ECTS points	4
Number of hours	15
Methods of estimation	Pass
Effects/results of education	Acquisition of basic knowledge and skills necessary for self-climbing on artificial walls. Acquiring the ability to adapt climbing elements to work with children and youth in school conditions (ladders). Teaching organization and maintaining safety while conducting classes.
Topics of the classes	 Safety rules while climbing the gym (ladders). Climbing movement technique - relations between the body position and the work of arms and legs (body position in the frontal and lateral position). Learning to protect. Planning task climbing routes in school conditions (ladders). Learning how to use the basic climbing equipment and the rules of a top rope climbing. Safety rules when climbing on an artificial wall. Learning belay during buldering. Learning basic climbing movements - using grips and steps. Exam - climbing the route with a specified degree of difficulty.
Recommended literature	White J. "The Indoor Climbing Manual", Bloomsbury Publishing 2014. Jim Stiehl J, B. Ramsey T.B. "Climbing Walls: A Complete Guide" Human

Kinetics, 2005

Subject	SPORT DZIECI I MŁODZIEŻY – WPROWADZENIE DO KONCEPCJI BIO-BANDING W OPARCIU O INDYWIDUALIZACJĘ ROZWOJU BIOLOGICZNEGO I OPTYMALIZACJĘ PROCESU TRENINGOWEGO. KIDS AND YOUTH SPORT – AN INTRODUCTION TO THE BIO-BANDING CONCEPT BASED ON THE INDIVIDUALIZATION OF BIOLOGICAL DEVELOPMENT AND OPTIMIZATION OF THE TRAINING PROCESS.
Unit of AWF	Department of the Theory of Sport / Zakład Teorii Sportu
Teacher's name	Jan M. Konarski, PhD, Ass. Prof. Mateusz Skrzypczak, MSc, PhD Student
ECTS points	4
Number of hours	15
Methods of estimation	Activity during meetings, Project
Effects/results of education	Increase knowledge about growth and maturation of kids and youth in the context of psycho-physical-biological needs and taking into consideration specific demands of early, late and on-time developing athletes as well as using individual diversity during sport training preparation. Bio-banding concept as tools to optimize training (PE lessons) / competitive process to minimize risk of injuries and optimize development of youth in perspective for adult life.
Topics of the classes	 Growth and maturation as milestones in human life Functional development Role of physical activity for youth and kids from recreation and fun to professional level Periodization of training and supporting general and special development on the next stage of adolescence in the context of long term athlete development Bio-banding and other tools to design training (PE's lessons) process and specific, individual loads Control and assessment of aims realization as information about appropriate decisions' making and direction of development. Practical solutions.
Recommended literature	 Malina, RM, Bourchard, C, and Bar-Or, O. (2004) Growth, maturation, and physical activity. Champaign, IL: Human Kinetics. Bompa T., Carrerra M. (2015) Conditioning young athletes.

Champaign, IL: Human Kinetics.

- 3. Sharkey, B. and Gaskill, S. (2006). Sport physiology for coaches. Champaign, IL: Human Kinetics
- 4. Bompa T. O., Haff B. (2009) Periodization: theory and methodology of training. 5th ed. Human Kinetics.
- 5. Balyi I., Way R., Higgs C. (2013) Long-term athlete development. Champaign, IL: Human Kinetics.
- 6. Faigenbaum A.V., Westcott W. (2009) Youth strength training. Champaign, IL: Human Kinetics.
- Malina, R. M., Cumming, S. P., Rogol, A. D., Coelho-e-Silva, M. J., Figueiredo, A. J., Konarski, J. M., & Kozieł, S. M. (2019). Biobanding in youth sports: background, concept, and application. Sports Medicine, 49(11), 1671-1685.
- Cumming, S. P., Lloyd, R. S., Oliver, J. L., Eisenmann, J. C., & Malina, R. M. (2017). Bio-banding in sport: applications to competition, talent identification, and strength and conditioning of youth athletes. Strength & Conditioning Journal, 39(2), 34-47.
- Cumming, S. P., Brown, D. J., Mitchell, S., Bunce, J., Hunt, D., Hedges, C., ... & Malina, R. M. (2018). Premier League academy soccer players' experiences of competing in a tournament bio-banded for biological maturation. Journal of sports sciences, 36(7), 757-765.
- Konarski, J. M., Konarska, A., Strzelczyk, R., Skrzypczak, M., & Malina, R. M. (2019). Internal and External Loads During Hockey 5's Competitions Among U16 Players. Journal of strength and conditioning research.
- Konarski, J., Krzykała, M., Skrzypczak, M., Nowakowska, M., Coelho-e-Silva, M., Cumming, S., & Malina, R. (2020). Characteristics of select and non-select U15 male soccer players. Biology of Sport, 38(4), 535-544.
- 12. Figueiredo, A. J., Gonçalves, C. E., Coelho e Silva, M. J., & Malina, R. M. (2009). Characteristics of youth soccer players who drop out, persist or move up. Journal of sports sciences, 27(9), 883-891.

Subject	NEUROMOTORYKA
	MOTOR CONTROL
Unit of AWF	Department of Neurobiology/Zakład Neurobiologii
Teacher's name	prof. dr hab. Jan Celichowski prof. dr hab. Piotr Krutki prof. AWF dr hab. Włodzimierz Mrówczyński prof. AWF dr hab. Dorota Bukowska
ECTS points	5
Number of hours	25
Methods of estimation	- participation in laboratory demonstrations - final written test
Effects/results of education	At the end of this course, the candidate will be able to: 1. Describe the basic structural components of the nervous system. 2. Understand and describe basic mechanisms behind neuronal excitability, conduction, synaptic transmission, nerve coding. 3. Understand and describe mechanisms of muscle contraction and control of movements. 4. Describe role of basic experimental studies on the nervous system in physiotherapy.
Topics of the classes	This course is designed for physiotherapy students. Basic knowledge of biology is required. The program covers structure and functions of neurons and glia, cell communication, structure and functions of the central nervous system, neuro-muscular transmission, neurological basis of movement, motor units. Morphological and electrophysiological methods of nervous system studies will be presented, and their contribution to physiotherapy will be described.
	During the course students will: - analyze the microscopic structure and location of the different types of neurons - examine the microscopic and macroscopic structure of slice preparations from different regions of the central nervous system and determine the localization and role of the major nerve centers - observe the microscopic structure of the stained slices of muscle tissue and motor units fibers - observe computer models of the action potentials, and

the postsynaptic potentials from the spinal cord neurons

- demonstrate (on a computer model) the motor unit contractions
- record electromyographic activity of limb muscles
- observe the physiological tremor in skeletal muscles
- determine the force-frequency curve of the motor units

Practical classes will be held at the electrophysiological and morphological laboratories, where students will be able to observe modern methods of studies on the nervous system.

- 1. A nerve cell. Electrophysiology of neurons.
- nerve cell structure, with main focus on the cell membrane
- nerve cells types: classification on the basis of structure and function
- cell excitability and excitation
- action potential and nerve conductance
- glial cells; structure of myelin sheath
- synapses: types and structure
- mechanisms of synaptic transmission
- synaptic delay and neurotransmitters
- postsynaptic excitatory and inhibitory potentials
- spatial and temporal summation
- presynaptic inhibition and facilitation
- electrical synapses
- convergence and divergence
- neuronal code
- 2. Morphological and electrophysiological methods of experimental studies on the nervous system.
- enzymatic and fluorescent markers for determining the connections within the nervous system
- microscopic analysis of marker injection place and identification of labeled cells in the brain stem
- extracellular and intracellular recordings of nerve cell action potentials and postsynaptic potentials
- electrophysiological studies on motoneuron properties
- patch-clamp, and voltage-clamp
- 3. Morphology and function of the central nervous system.
- the spinal cord structure and functions
- autonomic centers within the spinal cord
- major ascending (sensory) and descending (motor) tracts of the spinal cord
- the brain stem structure and functions
- cranial nerves, their motor, sensory and autonomic nuclei
- reticular formation of the brain stem
- the cerebellum macro and microscopic structure
- cerebellar inputs and outputs (control of movement and posture)
- motor disorders in cerebellar disorders

- the thalamus: general structure and function
- microscopic structure of the cerebral cortex
- motor programming
- location and role of telencephalic nuclei
- associative cortical areas and higher brain functions
- 4. Muscle fibers and motor units.
- muscle fiber morphology, ultrastructure and diversity
- molecular mechanisms of muscle contraction
- types of muscle contraction
- motoneurons and the neuromuscular junction
- types of muscle fibers
- the motor plate
- definition of a motor unit
- characteristics of different types of motor units
- the fatique test
- recruitment and derecruitment of motor units
- rate coding during muscle contractions
- characteristics of human motor units
- principles of electromyography
- normal and pathological EMG recording
- physiological tremor
- 1. J.A. Zoladz. Muscle and exercise physiology. Academic Press, 2019. ISBN 978-0-12-814593-7
- Kandel Eric, Schwartz James, Jessell Thomas (eds.)
 Principles of Neural Science ISBN-10: 0071390111 | ISBN13: 978-0071390118
- 3. Pfaff Donald W. (ed.) Neuroscience in the 21st century. From Basic to clinical. ISBN 978-1-4614-1998-3
- 4. Bear MF, Connors BW, Paradiso MA. Neuroscience, exploring the brain. ISBN-10: 0781760038 | ISBN-13: 978-0781760034
- Felten David L. and Shetty Anil N. Netter's Atlas of Neuroscience, 2nd Edition with STUDENT CONSULT. ISBN-10: 1416054189 | ISBN-13: 978-1416054184

Subject	FIZJOLOGIA OGÓLNA
	GENERAL PHYSIOLOGY
Unit of AWF	Department of Athletics, Strength and Conditioning/ Zakład Lekkiej Atletyki i Przygotowania Motorycznego
Teacher's name	Barbara Pospieszna, PhD
ECTS points	4
Number of hours	15
Basic information about the subject	Students will learn the basis of human physiology. Theoretical part is supported with practical aspects of physiology e.g. blood groups, HR, SV, BP measurement, pulmonary function tests etc. Students are encouraged to train their analytical approach to learning and working in groups.
Topics of the classes	 Blood a. Blood constituents (plasma, cells) b. Hemoglobin c. Blood functions d. Blood groups Cardiovascular system a. Heart b. Vascular system c. Electrical conduction system of the heart d. Heart and blood flow control e. Main parameters: HR, SV, BP, CO Respiratory system a. Stages of pulmonary ventilation b. Breathing regulation c. Vital Capacity, pulmonary volumes d. Minute lung ventilation (V_E), breathing frequency e. Pulmonary function tests Muscles a. Structure of skeletal muscle b. Sarcomere c. Motor unit and muscle fibers types d. Neuromuscular junction

Literature

Human Physiology 13th International Edition. Stuart Fox. 2012 Human Anatomy and Physiology. Katja Hoehn, Elaine N. Marieb. 2014 Human Physiology. Lauralee Sherwood. 2008.

Subject	FIZIOLOGIA WYSIŁKOWA
	EXERCISE PHYSIOLOGY
Unit of AWF	Department of Athletics, Strength and Conditioning/ Zakład Lekkiej Atletyki i Przygotowania Motorycznego
Teacher's name	Barbara Pospieszna, PhD
ECTS	4
Number of hours	15
Methods of estimation	active participation in classes, exam
Effects/results of education	Students will learn: - how human body functions under different exercise stimulation - what underlies the efficient training strategy - about the health benefits of exercise - how to estimate physical tolerance and physical capacity at different age and physical level
	Main systems functioning under exercise conditions: Nood and acid-base balance

blood and acid-base balance

Topics of the classes

- cardiovascular system
- respiratory system
- 2. The health benefits of exercise, exercise prescription
- 3. Direct and indirect methods of estimating physical tolerance and physical capacity (aerobic, anaerobic)

Bouchard C., Blair S.N., Haskell W.: Physical Activity and Health. Human kinetics 2012.

Recommended literature

Hargreaves M., Spriet L. Exercise Metabolism. Human kinetics 2006. Hoffman J. Physiological Aspects of Sport Training and Performance. Human kinetics 2014.

Kenney W.L., Wilmore J., Costill D. 6E.: Physiology of Sport and Exercise. Human kinetics 2015.

Richardson S., Andersen M., Morris T. Overtraining Athletes. Human kinetics 2008.

Taylor A., Johnson M. Physiology of Exercise and Healthy Aging. Human kinetics 2008.

	TEORIA I METODYKA TRENINGU SPORTOWEGO
Subject -	TEGRIA I METODINA I NEMINGO SI ONTOWEGO
	THEORY AND METHODOLOGY OF SPORTS (SPORTS SCIENCE)
Unit of AWF	Department of the Theory of Sport / Zakład Teorii Sportu
Teacher's name	Jan M. Konarski, Ass. Prof., Jarosław Janowski PhD Krzysztof Karpowicz PhD
ECTS points	5
Number of hours	20
Methods of estimation	Credit on the base of short resuming test, presentation of own project about chosen subject and personal, positive activity during meetings and exercises.
Effects/results of education	Student has an organized knowledge of the planning and implementation of sports training. He knows and understands basic methodological skills related to teaching and improving various types of training. He is able to prepare and execute a part or all of the training process independently in the context of the staged and major goals of the athlete's development.
Topics of the classes	 Training – meaning, definitions, principles. Long term athlete development – development of physical abilities and skills in training process taking into consideration needs of sport's ontogenesis. Theory and methodology of preparation basic condition (endurance, strength, speed, coordination). Issues concerning technical and tactical preparation of athletes. System of training's control and assessment. Designing and realization of training to chosen sport's disciplines. Periodization of training. Elements of sport coaching. Using advanced technology to training and competition monitoring. Prevention of injuries and overtraining. Psycho-biological regeneration / recovery methods.

- Balyi I, Hamilton A. (2004) Long-Term Athlete Development: Trainability in Childhood and Adolescence. Windows of Opportunity. Optimal Trainability. Victoria: National Coaching Institute British Columbia & Advanced Training and Performance Ltd.
- 2. Bompa T. O., Haff B. (2009) Periodization: theory and methodology of training. 5th ed. Human Kinetics.
- 3. Eston R., Reilly T. (2009) Kinanthropometry and exercise physiology laboratory manual. Routlege. Taylor and Francis Group.

Recommended literature

- Foran B. (2001) High-performance sports conditioning. Modern training for ultimate athletic development. Humn Kinetics.
- Malina, RM, Bourchard, C, and Bar-Or, O. (2004) Growth, maturation, and physical activity. Champaign, IL: Human Kinetics.
- 6. Martens R. (2004) Successful coaching. America's bestselling coach's quide. Human Kinetics.
- 7. Sharkey, B. & Gaskill, S. (2006). Sport physiology for coaches. Champaign, IL: Human Kinetics.
- 8. Wilmore JH., Costill DL. (1994) Physiology of sport and exercise. ChampaignIL: Human Kinetics.

Subject	BIOMECHANIKA
	BIOMECHANICS
Unit of AWF	Department of Biomechanics/ Zakład Biomechaniki
Teacher's name	Michał Murawa, PhD
ECTS points	4
Number of hours	15
Methods of estimation	The evaluation consists of an theoretical exam and PowerPoint presentation
Effects/results of education	After completing this course, the student: - has some basic knowledge about the biomechanical parameters of the human apparatus of movement - has basic knowledge about the biomechanical research methods for
	evaluation of the patients/athletes - has basic abilities to work on Biodex System to objectively evaluate and train human muscles
	 has basic abilities to work on AMTI balance platform during both rehabilitation or training programme learns about the possibilities of using optoelectronic systems like BTS for the evaluation of the human movement
Topics of the classes	A. Introduction to the Biomechanics: A.1. Short history of the Biomechanics A.2. The analysis of the Biomechanics course syllabus A.3. The analysis of the necessary bibliography A.4. The rules of completing the course A.5. Introduction to the biomechanical laboratory B. Some of the biomechanical parameters of the human apparatus of movement: B.1. Human body structure as a reference system B.2. Determination of the planes, lines, reference points B.3. Mass parameters of the human body B.4. Determination of the individual segments centers of masses B.5. Methods of calculation of the center of gravity C. Theory of the muscle torques measurements in various conditions: C.1. Static conditions D. Muscle torques measurements – practice (laboratory):
	D.1. Muscle torques measurements using Biodex System 3 - practice E. Biomechanics of the human gait (laboratory): E.1. Kinematics and kinetics of the gait using BTS System and AMTI platforms - practice F. Stabilometry (laboratory):

F.1. The analysis of the Center of Pressure (COP) movement during simple balance tests using AMTI balance platform - practice

Craig L.R., Oatis C.A. (1995) Gait Analysis. Theory and Application.

Cram J.R., Kasman G.S., Holtz J. (1998) Introduction to Surface Electromyography. Aspen Publishers.

Hall S.J. (1999) Basic biomechanics. Mc Graw-Hill International Edition. Inman V.T., Ralston H.J., Todd F. (1981) Human Walking. Williams and Wilkins, Baltimore/London.

Kapandji I.A. (1970) The Physiology of the Joints. Vol. I and II. E&S Livingstone. Edinburg&London.

Konrad P. (2007) ABC EMG.

Recommended literature

Maquet P.G.J. (1976) Biomechanics of the Knee. Springer-Verlag. Berlin. Medved V. (2001) Measurement of Human Locomotion. CRC Press.

Neumann D.A. (2002) Kinesiology of the Musculoskeletal System. Foundations for Physical Rehabilitation. Mosby. St Louis.

Oatis C.A. (2004) Kinesiology. The mechanics & pathomechanics of human movement. Lippincott Williams&Wilkins.

Perry J. (1992) Gait analysis. Normal and Pathological Function. SLACK Incorporated. NJ

Rash P.J., Burke R.K. (1978) Kinesiology and applied anatomy. The science of human movement. Lea & Fibiger. Philadelphia.

Whiting W.C., Zernicke R.F. (1998) Biomechanics of Musculoskeletal Injury. Human Kinetics.

Winter D. (1998) The Biomechanics and Motor Control of Human Gait: Normal, Elderly and Pathological. University of Waterloo.

Subject	EDUKACJA ZDROWOTNA
	HEALTH EDUCATION
Unit of AWF	Department of Physical Activity Sciences and Health Promotion/ Zakład Nauk o Aktywności Fizycznej i Promocji Zdrowia
Teacher's name	Ida Laudańska-Krzemińska, Ass. Professor
ECTS points	4
Number of hours	15
Methods of estimation	assessment
Basic information about the subject	The course's objective includes following issues: ways of understanding and defining the health; holistic concept of health as an alternative to the biomedical model; models and methods of health education and it adoption in physical education classes (eg. experiential learning); basics of health didactics in context of physical educator's/coach's work.
Topics of the classes	 Theoretical foundation and aspects of application of health promotion and health education (biopsychosocial model of health and sickness, setting theory, health promotion models, health education models) Health education and physical education – associations and dependences, terminology, basic, concepts, models Health behavior Concepts and definitions, models for changing (Health Belief Model, HAPA, Transtheoretical Model), application for school Characteristic of the main important behavior: physical activity, nutrition, smoking cigarettes, drinking alcohol, self-control Interactive teaching and learning of attitude (relation) for body and health in physical education Active learning – principle and model, constructivism as theoretical basis Experiencing teaching – principle, Kolb' cycle Workshop as a methodical procedure in health and physical education Examples techniques and methods of active learning

using in health and physical education – methods of integrate, diagnostic, planning, developing creative reflection, discussion, creative solving of problem

- 5. Employment of interactive teaching in physical education teacher work—elaboration outline (draft) and conducting of the health education lesson with pupils in primary or secondary school
- Puza R.F. Health education. Ideas and activites. Human Kinetics. 2008
- 2. Page R.M, Page T.S. Promoting health and emotional well-being in your classroom. Jones and Barlett Learning 2015
- Physical education and health education common didactic goals and interdependencies. Eds. Bronikowski M., Krawański A., Osiński W. AWF Poznań, 2011
- 4. A guide for incorporating health & wellness into school improvement plans. CDC, 2016
- MORSE L.L., ALLENSWORTH, F.D Placing Students at the Center: The Whole School, Whole Community, Whole Child Model. Journal of School Health, November 2015, Vol. 85, No. 11p. 785
- Laudańska-Krzemińska I. Health education as a challenge for physical education teachers - a Polish perspective. [W:] Fachdl.ktik "Bewegung und Sport" im Kontext (pod red.) Kleiner K. Purkersdorf: Verlag Brüder Holllinek, 2012, 237-247
- 7. Krawański A. Intellectual challenges of physical education Studies in Physical Culture and Tourism 2009 t. 16 nr 3 s. 281-290
- 8. Krawański A. Pedagogical challenges of physical education Studies in Physical Culture and Tourism 2009 t. 16 nr 4 s. 401-412
- 9. JOURNALS:
 - a. European Journal of Physical and Health Education
 - b. Education for Health: Change in Training & Practice
 - c. Health Education Research
 - d. Physical & Health Education Journal
 - e. Global Health Promotion
 - f. Health Promotion International
- Health behavior and health education: theory, research, and practice / Karen Glanz, Barbara K. Rimer, Frances Marcus Lewis, editors; foreword by Noreen M. Clark.
- Health Promotion Planning. An Educational and Environmental Approach/LW Green, MW Kreuter

Recommended literature

Subject -	DYDAKTYKA WYCHOWANIA FIZYCZNEGO
	DIDACTICS OF TEACHING AND LEARNING PHYSICAL EDUCATION
Unit of AWF	Department of Didactics of Physical Activity/ Zakład Dydaktyki Aktywności Fizycznej
Teacher's name	Michał Bronikowski, Ass. Prof. (Head of Department)
ECTS points	5
Number of hours	20-hour lecture course and 10-hour of practical skills workshops
Methods of estimation	Requirements for this course are: class participation and a single lesson plan. The final assessment is done through preparation of a PE lesson plan and a written test.
Effects/results of education	Subject deals with theoretical frameworks (models of teaching) and practical approaches (methods, teaching styles, organization of the teaching and learning process) to main issues in physical education concerning both the process and the interaction between the PE teacher and pupils in school and out-of-school environment. It prepares students to working as teachers of physical education at all levels of education using extensively media for didactic purpose (didactic films and examples of workshop skills in practice). Students also learn about the differences in teaching physical education in various European countries and a teaching career pathways.
Topics of the classes	 Sport pedagogy and didactics Methodology of teaching physical education – what is it? Physical education teaching – "state of art" Health-related physical education Direct or indirect teaching? Teaching values in physical education - Are we facing a crisis of education (and values)? Can Olympic Education be among the pacemakers? A modern PE teacher (and difference to a Youth Sport Coach) What makes the difference between teaching physical education and coaching sport? A physical education lesson vs. a sport lesson A review of teaching models in physical education Developing teaching schemes, units and a single PE lesson Teaching methods and styles Safety or fun physical education?

- 15. Recommendations for teaching physical education
- 16-24Practice in physical education
- 25. Consolidation and test
 - Bronikowski M. (2014). Where is Physical and Health Education heading in Poland. In: Chin MK and Edginton R. (eds.) Physical Education and Health. Global Perspective and Best Practice. Sagemore Publishing, pp. 369-383.
 - Bronikowski M. (2017). Physical activity and Health. In: Knisel E. at el. (eds.) Health promotion at schools. Pedagogical aspects and practical implications. De Gruyter Open, pp. 33-45.
 - 3. Bronikowski M. Bronikowska M., Kantanista A. (2012). Teaching games from the cultural, social and sporting perspective. AWF Poznań.
 - 4. Bronikowski M. (2010). Physical education teaching and learning. AWF Poznań.
 - Bronikowski M., Bronikowska M., Kantanista A., Ciekot M., Laudańska-Krzemińska I., Szwed Sz. (2009). Health-related intensity profiles of Physical Education classes at different phases of the teaching/learning process. Biomedical Human Kinetics, 1, 86-91.
 - Bronikowski M., González-Gross M, Kleiner K., Knisel K., Martinková I., Stache A., Kantanista A., Cañada Lòpez D., Konlechner A., (2008). Physical activity, obesity and health programs in selected European countries. Studies in Physical Culture and Tourism, 15,(1):9-18.
 - 7. Bronikowski, M., Biniakiewicz, B., Mroczkowska, M., Grześkowiak, E. (2006). Conflictive behaviours during physical education classes in Poland, Wychowanie Fizyczne i Sport, 50.(4):255-259.
 - Capel S. (2005). Learning to teach physical education in the Secondary School. A companion to School Experience. RoutledgeFalmer. London.
 - 9. Hellison D. (1985). Goals and strategies for teaching physical education. Human Kinetics, II.
 - 10. Hellison D. (2003). Teaching responsibility through physical activity. Human Kinetics, II.
 - 11. Mohnsen B.S. (2008). Teaching middle school physical education. Human Kinetics, II.
 - 12. Mosston M., Ashworth S. (1994). Teaching physical education. MacMillan College, New York.
 - 13. Naul R. (2008). Olympic Education. Meyer and Meyer Sport Publishers, UK.
 - 14. Penney D., Chandler T. (2000). Physical Education: What future (s)?, Sport, Education and Society, 5,(1):71-87.
 - Rovegno, I. (1994). Teaching within a curricular zone of safety: school culture and the situated nature of student teachers' pedagogical content knowledge, Research Quarterly

- for Exercise and Sport, 65(3):269-279.
- 16. Salvara, M.I., Jess, M., Abbott, A., Bognar, J. (2006). A preliminary study to investigate influence of different teaching styles on pupils' goal orientations in physical education, European Physical Education Review, 12,(1):51-74.
- 17. Schmidt, R.A. (1988). Motor control and learning: A behavioral emphasis, USA, Human Kinetics Publishers.
- 18. Shields D.L., Bredemeier B.J.L. (1995). Character development and physical activity. Human Kinetics. USA.
- Siedentop D. (1989). Developing teaching skills in Physical Education. 3rd Edition, Mayfield Pub.Co, California. Siedentop D. (1998). What is sport education and how does it work. Journal of Physical Education, Recreation and Dance, 69, (4):18-20.

Subject	MULTICULTURAL GAMES IN PRACTICE
	GRY RÓŻNYCH KULTUR - ZAJĘCIA PRAKTYCZNE
Unit of AWF	Department of Recreation/ Zakład Metodyki Rekreacji
Teacher's name	Małgorzata Bronikowska, Ass. Prof.
ECTS points	5
Number of hours	20
Methods of estimation	Theoretical test of Ethnology of Sport (after 15 hours) and practical passing (after 10 hours training)
Effects/results of education	After the course students should know: 1. Definition of Ethnology of Sport; TSG 2. Classification of TSG and main Play theorists (academics) 3. The main aims of TSG with main organizations (on local and international levels) 4. Local/national/international Events based on TSG 5. They own cultural heritage in the context of TSG 6. The multicultural and divers context of TSG 7. How to use and provide TSG in PE classes and other physical activities programmes.
Topics of the classes	 Introduction to Ethnology of Sport (2 H) TSG as a play phenomenon (2 H) TSG as a heritage of Physical Culture (examples) (2 H) Institutions and programmes undertaking TSG in different contexts (2 H) PP Presentations of selected TSG in students' regions (6 H) Theoretical test passing (1H) Work shop with selected Polish games (5 H) TSG proposal from students' regions (prepared by students) (5H).
Recommended literature	 Lipoński, World Sport Encyclopedia, Atena, Poznań, 2004. Bronikowska M., Recall Games of the Past-Sports for Today, TAFISA 2015. Blanchard K., The Anthropology of Sport, Bergin and Garvey, Westport, Connecticut – London 1995. Gomme A.B., The Traditional Games of England, Scotland and Ireland, vol.1, vol.2, David Nutt, London 1894.

	AVTVANAGÉ FITVETNA OCÉD NIEDFI NOCED AMANYOU
Subject -	AKTYWNOŚĆ FIZYCZNA OSÓB NIEPEŁNOSPRAWNYCH
	ADAPTED PHYSICAL ACTIVITY OF DISABLED
Unit of AWF	Department of Adapted Physical Activity/ Zakład Adaptowanej Aktywności Fizycznej
Teacher's name	Maciej Wilski. PhD, MSc PT
ECTS points	3
Number of hours	15
Methods of estimation	Student's presentation. Practical classes, workshop.
Effects/results of education	After completing this course, the student: - develops the competences necessary to work with disabled athletes - develops teaching, training, and coaching skills, needed for a well- balanced approach in educational and sports environment - develops knowledge of Paralympic sports and adaptive activities.
Topics of the classes	A. Foundational topics in APA (Adapted Physical Activity), history, purposes, aims, goals, and objectives of sports for disabled persons, disability based sport organizations, disability sport terminology. B. Winter and summer Paralympic sports, team sports for disabled persons. Practical training: - Goalball - Wheelchair Rugby - Boccia C. Active rehabilitation — history, purposes, aims, goals, organizations and practical training. D. Social and psychological advantages of sports of the disabled
Recommended literature	Sherill C.: Adapted physical activity, recreation and sport. The McGraw-Hill Companies, 1998 Winnick, J., & Porretta, D. (Eds.). (2016). Adapted Physical Education and Sport, 6E. Human Kinetics.

	METODA RUCHU ROZWIJAJĄCEGO WERONIKI SHERBORNE
Subject	SHERBORNE DEVELOPMENTAL MOVEMENT- THERAPY FOR THOSE WITH MINIMAL MOVEMENT EXPERIENCE, AS WELL AS CHILDREN WITH PROPER DEVELOPMENT
Unit of AWF	Faculty of Sport Sciences in Gorzów Wlkp. / Zamiejscowy Wydział Kultury Fizycznej w Gorzowie Wlkp.
Teacher's name	Katarzyna Rosicka, MSc
ECTS points	3
Number of hours	15
Methods of estimation	Active participation in the classes, workshop.Students' presentation
Effects/results of education	Sherborne Developmental Movement is an approach to teaching and working with movement that is both accessible, by people with minimal movement experience, as well as children with proper development. Benefits of using Sherborne Developmental Movement • Develop good self esteem, form positive relationships • Improve emotional and physical literacy • Extend and improve communication and creative expression • Build learning power, challenge thinking and increase problem solving At the end of this course, the candidate will be able to: 1. Define and understand principles of Sherborne Developmental Movement 2. Apply such knowledge in practice.
Topics of the classes	 The principles of Sherborne Developmental Movement. Benefits of using Sherborne Developmental Movement Practical Training.
Recommended literature	Sherborne W., Developmental Movement for Children, Worth Publishing, 2001 https://www.sherbornemovementuk.org/about/sherborne-developmental-movement/

Subject -	ŻYWIENIE W CHOROBACH CYWILIZACYJNYCH
	NUTRITION IN DISEASES OF CIVILIZATION
Unit of AWF	Department of Food and Nutrition /Zakład Żywnościl i Żywienia
Teacher's name	Joanna Karolkiewicz, PhD, associate professor Ewa Śliwicka, PhD
ECTS points	3
Number of hours	15
Methods of estimation	Theoretical classes. Practical classes in the form of workshops preparing and preparing meals.
Effects/results of education	The course content includes current nutrition theory and evidence based practice in prevention and treatment of disease. Advanced therapies and patient management in nutrition support will be discussed. Course topics include obesity, cardiovascular disease, diabetes, cancer and osteoporosis.
Topics of the classes	 Energy balance and body composition. Principles of human nutrition. Nutrition in obesity and diabetes Nutrition in cardiovascular disease. Nutrition in osteoporosis. Nutritional treatment in cancer
Recommended literature	1.Eastwood, M. A. Principles of Human Nutrition, 2nd edition, Wiley-Blackwell, 2003. 2.Lean M.E.J. Principles of human nutrition. Medicine, 2015, 43 (2), 61-65. 3.Payne A., Barker H.M., Advancing Dietetics and Clinical Nutrition. Churchill Livingstone, 2010. 4.Katsilambros N., Dimosthenopoulos C., Kontogianni M.D., Manglara E., Poulia K.A. Clinical Nutrition in Practice. Wiley-Blackwell, 2010.

Subject	POTRAWY I POSIŁKI WEGETARIAŃSKIE W PROFILAKTYCE I LECZENIU CHORÓB
	VEGETARIAN FOOD AND MEALS IN THE PREVENTION AND TREATMENT OF DISEASES
Unit of AWF	Department of Dietetics / Zakład Dietetyki
Teacher's name	Małgorzata Mizgier, PhD
ECTS points	3
Number of hours	15
Methods of estimation	Activity during meetings
	The aim of the course is to familiarize students with the following
	topics:
Effects/results of	-vegetarian diet in prevention and treatment of diseases
education	-the use of a variety of healthy plant based foods in preparing
	vegetarian dishes
	-the benefits and the risks of using a vegetarian diet
	Vegetarianism and a variety of a plant-based diet
	Vegetarian diet and disease prevention
	Non-meat sources of nutrients
Topics of the classes	Vegetarian dishes and recipes
Topics of the diasses	Food preparation techniques
	Planning a healthy vegetarian diet
	1.Ruth A, Torh MS. Nutrition and Diet Therapy. 10 th Edition Delmar,
	Cengage Learning 2011, 2007, 2003
	2.https://nutritionstudies.org/top-10-plant-based-news-stories-and-
Recommended	articles-of-2020/.Accessed 31.03.2021
literature	3.https://nutritionstudies.org/solving-food-pyramid-mysteries/.
	Accessed 31.03.2021
	https://www.ncpro.org/pub/file.cfm?item_type=xm_file&id=541304. Accessed 31.03.2021

Subject	SOCJOLOGIA CZASU WOLNEGO
	SOCIOLOGY OF LEISURE
Unit of AWF	Department of Pedagogy / Zakład Pedagogiki
Teacher's name	Robert Florkowski, PhD
ECTS points	4
Number of hours	15
Methods of estimation	Pass
Effects/results of education	The course aims to introduce students to the terminology of sociology of leisure which is the study of how humans organize their free time. Students will understand how the sociology of leisure is closely tied to the sociology of work, as each explores a different side of the work-leisure relationship. The main subject is an analysis of tourism and recreation which is strictly connected with leisure time. Students prepare presentations about determinants of leisure time activities, types of leisure activities (substantially influenced by the individual's immediate situation: presence or lack of the family, age, and other factors).
Topics of the classes	1. Introduction to sociology of leisure as a fairly recent subfield of sociology, compared to more traditional subfields such as sociology of work, sociology of the family, and sociology of education. 2. Terminology of leisure and the discussion on the difficulties with the definition of leisure. The analysis of its numerous definitions. 3. The discussion on some unresolved questions concerning the definition of work: in particular, whether unpaid endeavors, such as volunteering or studying, are work. Non-work time should not be equated with free time, as it comprises not only free time, dedicated to leisure, but also time dedicated to certain obligatory activities, such as housework. 4. The analysis of the relation between work and leisure which can also be unclear: research indicates that some individuals find skills that they have acquired at work useful to their hobbies (and vice versa), and some individuals have used leisure activities to advance their work careers. 5-7. Students' presentations

Ch. Rojek, "Leisure and Tourism", in: C. J. Calhoun, Ch. Rojek, B. S. Turner, eds., The Sage Handbook of Sociology, SAGE, 2005, ISBN 0-7619-6821-0.

J. R.Kelly, Geoffrey Godbey, The Sociology of Leisure, Venture Pub., 1992, ISBN 0-910251-56-8.

- G. Marshall, "Leisure, sociological studies of" A Dictionary of Sociology, 1998,
- J. H. Frey, D.R. Dickens, "Leisure as a Primary Institution", Sociological Inquiry. vol. 60, no. 3, 1990, pp. 264-73, ON: 1475-682X,
- J. Wilson, "The Sociology of Leisure", Annual Review of Sociology, vol. 6, August 1980, pp. 21-40.

Subject -	ZABURZENIA OSOBOWOŚCI A RELACJE INTERPERSONALNE
	THE PERSONALITY DISORDERS AND INTERPERSONAL RELATIONS
Unit of AWF	Department of Pedagogy / Zakład Pedagogiki
Teacher's name	Robert Florkowski, PhD
ECTS	5
Number of hours	20
Methods of estimation	Pass

The subject is mainly based on nosology of disturbed personalities used in clinical psychology, psychiatry and psychotherapy.

The aim of this subject is to review the major personality disorders and consider the interpersonal impact. Every person does have an individual, to some extent unique, personality profile. There is a thin line between specific style of character and personality disorder. The disturbed personality leads to intra-personal and inter-personal difficulties. The term "toxic" relationships usually refers to difficulties caused by mentioned above dysfunctions. The first goals of this subject is to widen the insight, called some times - "self-science". The second goal is to build the basic understanding of the others and consider possible strategies of handling the people with dysfunctional personality. The self-protections is a crucial aspect of psychological exploration. The classes are interactive, thriving on group activity. The academic discussion is at the core of the subject.

Effects/results of education

- The introduction of the concept of normal and abnormal personality.
- The review of cluster A personality disorders:
- the paranoid personality disorder
- the schizoid personality disorder
- the schizotypal personality disorder.

The review of each cluster includes familiarization with the constellation of features of specifically disturbed personality, intra-personal dynamics, inter-personal dynamics, inter alia cognitive, affective, behavioral and relational patterns, including styles of interpersonal communication.

- The review of cluster B personality disorders:
- the antisocial personality disorder
- the borderline personality disorder

Topics of the classes

- the histrionic personality disorder
- the narcissistic personality disorder and hubris syndrome
- The review of cluster C personality disorders:
- the avoidant personality disorder
- the dependent personality disorder
- the obsessive-compulsive personality disorder
- Review of some of the disturbed personalities not included in the Diagnostic and Statistical Manual of Mental Disorders or placed in its appendix:
- the authoritarian personality
- the multiple personality
- the self-defeating (masochistic) personality
- the sadistic personality
- the depressive personality
- the negativistic (passive-aggressive) personality

- 1. Diagnostic and Statistical Manual of Mental Disorders (DSM-5), (2013), American Psychiatric Association.
- 2. Millon T., (2004), Personality Disorders in Modern Life, 2nd Edition, Wiley.

Subject	KOMUNIKACJA MIĘDZYKULTUROWA
	CROSS-CULTURAL COMMUNICATION
Unit of AWF	Department of Natural and Cultural Foundations of Tourism/ Zakład Przyrodniczych i Kulturowych Podstaw Turystyki i Rekreacji
Teacher's name	Karolina Buczkowska-Gołąbek, Ass. Prof.
ECTS points	4
Number of hours	15
Methods of estimation	Work
Effects/results of education	Students will recognize differences, dimensions, barriers of communication between various cultures of the world and will know the practical keys for effective cross-cultural communication.
Topics of the classes	 Basic concepts and definitions concerning cross-cultural communication: culture, cross-culture, culture models, communication, etc. Cultural dimensions, values, dos and don'ts in various cultures represented by Erasmuses – similarities and differences. Barriers of cross-cultural communication: ethnocentrism, stereotypes, prejudice, perception, interpretation, language, culture shock etc. – theory and workshops. Cultural learning – theory and workshops.
Recommended literature	Bencikova D., Cross-cultural Communication in Business, Banska Bystrica, 2007 Le Baron M., Conflict Across Cultures: A Unique Experience of Bridging Differences, Intercultural Press, 2006

Subject	NORDIC WALKING
	NORDIC WALKING
Unit of AWF	Department of Recreation/ Zakład Metodyki Rekreacji
Teacher's name	Małgorzata Woźniewicz-Dobrzyńska, PhD
ECTS points	4
Number of hours	15
Methods of estimation	Pass
Effects/results of education	Show the correct marching technique. Health technique, fitness technique, sport technique. Hills and holly jumps. Methodology of teaching of Nordic Walking. The course is a practical development of the theoretical foundations on ideas and forms of movement and its historical outline. Nordic Walking is a form of physical activity aimed at stimulation of almost 90% of muscle mass during normal marching techniques. Students will be able to obtain qualifications of a PSNW instructor. Students have the opportunity to get qualified instructors of Nordic Walking.
Topics of the classes	Methodology of teaching of Nordic Walking. Sticks carry, sticks pull, sticks drive in the ground. Exercises of marching techniques. Healthy, fitness, sport speed and techniques of marching of Nordic Walking. Jumping, warming up in Nordic Walking. Trainings with different age groups- children, teenagers, elder and old people. 1. A theoretical basis - brief history. 2. The equipment and clothing, and the pace and marching techniques in Nordic Walking. 3. Physiological basics of building a Nordic Walking training unit. 4. Practical outdoor session. 5. Warm-up, learning to walk, healthy pace, fitness pace, sports pace. 6. Ascent and descent – a hill. 7. Games with NW poles. 8. Functional training with NW poles.

- 9. Multi-jumps, intervals.
- 10. Practical and theroretical evaluation.

Tim T –Bone Arem, Nordic Walking. Ruszaj swoje ciało, Laurum 2006

M.T. Figurscy Nordic Walking dla ciebie, Interspar 2008 Zygmunt Skibiński: Marsze z kijkami. Wyd. Skibiński, Łódź 2008 Praca Zbiorowa, Nordic Walking. Ćwiczenia, porady lekarz rodzinnego, Literat 2011

Recommended literature

D. Burger, Nordic Walking, sposób na zdrowie i kondycję, Klub dla Ciebie 2010

Klaus Schwanbeck: The ultimate Nordic Pole Walking book. Wyd.

Meyer & Meyer Sport. 2009

Claire Walter: Nordic walking - the complete guide to health,

fitness, and fun. Wyd. Hathereigh, 2009

Suzanne Nottingham, Alexandra Jurasie: Nordic Walking for Total

Fitness. Wyd. Human Kinetics, 2010

Subject –	TENIS
	TENNIS
Unit of AWF	Section of Tennis /Pracownia Tenisa
Teacher's name	Tomasz Garsztka, PhD
ECTS points	4
Number of hours	15
Methods of estimation	multiple choice written test running a part of a tennis lesson for classmates running a tournament for classmates
Effects/results of education	Students will be able to: demonstate basic tennis skills introduce the scoring system and basic rules to beginner players organize a tennis lesson for beginner players conduct simple coordination exercises and fun games introduce the basic strokes to a group of beginners describe the methodology used in mini-tennis organize competition for beginner players
Topics of the classes	Learning basic tennis skills; from mini tennis to regular tennis. Introduction to teaching the game of tennis, how the children learn Coordination/Fun exercises. How to Introduce the Basic Strokes to a Group of Beginners. Description of methodology used in mini-tennis. Tournament formats for beginners.
Recommended literature	ITF coaches Manual. ITF London (provided by a teacher)

literature

Subject -	ELEMENTY ARTETERAPII
	ART THERAPY WORKSHOP
Unit of AWF	Zakład Tańca / Department of Dance
Teacher's name	Paulina Wycichowska, MA
ECTS points	4
Number of hours	15
Methods of estimation	The knowledge is presented in a form of workshops: practical experiments involving individual and group work.
Effects/results of education	Art Therapy Workshop is designed to provide a student with basic experience of various techniques of art therapy. The aim of the subject is to prepare a student for creative and collaborative work through experience of music and visual arts.
Topics of the classes	 Main topics of study: Introduction to art therapy: art as a means of maintaining wellbeing. Concept of creativity, its measurement and development. Strategies of stress management. Introduction to creative writing. Introduction to music therapy. Introduction to drawing, painting & collage therapy. Introduction to photography therapy. Exercises: Reflection on concepts: "Art" and "Artist". Training creativity: associations, metaphore, convergent and divergent thinking, lateral thinking. Creating works involving music, drawing, painting, collage and photography. Reflection on the works.
Recommended literature	Rubin Judith A., Introduction to Art Therapy: Sources and Resources, Routledge 2010. Malchiodi Cathy A., Handbook of Art Therapy, Guilford Press 2003.

Subject -	ELEMENTY TERAPII TAŃCEM - WPROWADZENIE
	DANCE THERAPY ELEMENTS - INTRODUCTION
Unit of AWF	Zakład Tańca / Department of Dance
Teacher's name	Paulina Wycichowska, MA, Justyna Torłop-Bajew, MA
ECTS points	4
Number of hours	15
Methods of estimation	The knowledge is presented in a form of workshop of practical experiments involving individual and group work.
Effects/results of education	Dance Therapy Elements subject is designed to provide a student with basic experience of various techniques of dance therapy. The aim of the subject is to prepare a student for creative and collaborative work through experience of dance therapy elements in workshop.
Topics of the classes	 Main topics of study: Introduction to dance therapy: concept of "dance". Potential effects of dance therapy. The healing and developmental assets of dance therapy. Introduction to dance therapy LMA – Laban Movement Analysis System. Introduction to dance therapy - important influences: Irmgard Bartnieff, Mary Chace, Anna Halprin. Exercises: Laban - Bartenieff Movement Fundamentals. Exploring body, shape, space and dynamics movement structures. Mirroring and synchronised movement. Reflection on the processes.
Recommended literature	Bartenieff Irmgard, Body Movement – Coping With Environment, Routledge 1980. Dance Movement Therapy: Theory and Practice, edited by Helen Payne, Routledge 1992.

Subject	YOGA
	THE BREATH IN CONNECTION WITH PERFORMED ASANAS.
Unit of AWF	Zakład Tańca / Department of Dance
Teacher's name	Andrzej Adamczak
ECTS points	4
Number of hours	15
	1. Introduction to yoga,
Methods of estimation	2. Concentration on the breath in connection with performed
	asanas.
	3. How to use muscles in yoga positions.
Effects/results of education	1. Student knows the basics of yoga's asana.
	2. Student knows how to use the breath when correctly performing
	asanas.
	3. Student can perform strengthening and stretching exercises.
Topics of the classes	1. Teaching selected asanas.
	2. Using the breath correctly.
	3. Teaching the exact exercise of individual asanas.

Subject -	FLOORWORK W TECHNICE RELEASE
	FLOORWORK IN RELEASE TECHNIQUE
Unit of AWF	Zakład Tańca / Department of Dance
Teacher's name	Agnieszka Doberska MA, Paulina Wycichowska Phd, Paweł Malicki MA, Joanna Gronek MA
ECTS points	4
Number of hours	15
Methods of estimation	 Current assessment of student's activity during the class. Assessment of knowledge of the given dance material and the rules for its implementation. Assessment of practical skills acquired during the class.
Effects/results of education	 Student knows assumptions of the Release technique. Student knows how to improve motility of the body and how to efficiently use motional capabilities of the body in reference to assumptions of the floorwork technique Student understands the body as an instrument of the movement that is a dynamic form of expression in time and space. Student performs a direct and complete motional statement using movement vocabulary. Student demonstrates basic knowledge of concepts such as: partial releasing of the tension of the external muscles of the body, suspention of the movement, swing, circular trajectory of the movement, mental imagery of the spiral movement, clarity and organic movement. Student is fluent in recognizing, reproducing and remembering movement material.
Topics of the classes	 Body conditioning: warming up, strengthening, stretching and shaping the muscles, increasing the range of movement in the joints of the body. Awareness of the space in the body and three dimensional body movement in reference to space, awareness of the rotation in the joints. Stability in the body through exercises including: tension release. Practicing concepts such us: awareness of the weight of the singular parts of the body, suspention of the body in the movement, spiral movement of the body, movement's circular trajectory Oppositional directions in the movement of the body parts, multidirectional movement of the body

Recommended literature

Franklin Eric N. "Conditioning for dance / Training for peak performance in all dance forms" Human Kinetics, 2004 Franklin Eric N. "Dynamic alignment through imagery" Kined, 2014

Subject –	TRENING ZDROWOTNY: PRACA Z POWIĘZIĄ
	TRAINING FOR HEALTH: FASCIA SOMATIC EXPERIANCE
Unit of AWF	Zakład Tańca / Department of Dance
Teacher's name	Joanna Gronek, MA
ECTS points	4
Number of hours	20
Methods of estimation	Practical assessment
Effects/results of education	The student possesses knowledge of implementing Fascia Training techniques, integrating deep stabilization methods, and tailoring the training regimen to accommodate individual abilities and ranges of motion within the body. They demonstrate proficiency in a diverse array of exercises and understand the precise execution required to effectively activation various muscle groups and fascial bands throughout the body.
Topics of the classes	The curriculum is structured to impart fundamental knowledge to students concerning core stability across a spectrum of exercises rooted in somatic training with elements of yoga methodology. Emphasis is placed on understanding the integration of musculature with postural alignment and core stabilization principles. Class topics include: • Analysis of muscle activation patterns of the lumbo-pelvic-hip complex conjunction with foot stabilization and elongation of the upper myofascial band, correlated with breathing. • Analysis of movement from deeper and superficial myofascial tape. • Exeprience of different breathing patterns: • upper-costal, diaphragmatic and lower-costal respiratory pathway.
	 B.K.S Iyengar, Light on Yoga, Schocken Books, 1996. Blandine Calais- Germain, Anatomy of Yoga the muscles in

yoga.

3.

4.

Recommended

literature

Human Living Fascia: The Extracellular Matrix and Cells

58

Erick N. Franklin, Dynamic Alignment Through Imagery,

Jean-Claude Guimberteau, Colin Armstrong, Architecture of

Champaign, Ill.: Human Kinetics, 1996.

- Revealed Through Endoscop, Handspring Publishing Limited, 2015.
- 5. Mira Mehta, How to use yoga, a step by step guide to the lynegar method of yoga for relaxation, health and well-being shown in 450 photographs, Southwater, 2019.
- Rita Keller, Iyengar for healthy aging. Upright, cheerful and serene, Yoga Akademie Wissen, 2021. Samanta Wood, Pilates for rehabilitation. Recover, Human Kinetics Publishers, 2018.
- Thomas W. Myers Anatomy Trains, Myofascial Meridians for Manual Therapist & Movement Professionals, Elsevier Health Sciences, 2020.

Subject —	ZAAWANSOWANE METODY OCENY STANU ODŻYWIENIA I SKŁADU CIAŁA
	ADVANCED METHODS IN NUTRITIONAL EVALUATION AND BODY COMPOSITION ASSESSMENT
Unit of AWF	Zakład Biologicznego Rozwoju Człowieka / Department of Human Biological Development
Teacher's name	Joanna Ratajczak, PhD Ewa Bryl, PhD
ECTS points	4
Number of hours	15
Methods of estimation	- participation in class activities - confirmation of the ability to perform anthropometric
	measurements - calculate anthropometric indices, and interpret the obtained results
Effects/results of education	The student possesses knowledge of biochemical and questionnaire-based nutritional assessment, and anthropometric assessment of body composition. The student possesses practical skills for conducting anthropometric measurements and can interpret the results using them for nutritional assessment purposes.
Topics of the classes	Introduction to Nutritional Assessment (4 hours) - Biochemical Assessments (Theoretical Discussion) - Dietary Questionnaires (Practical Exercises) Anthropometric Body Composition Assessment (4 hours) - Measurement Instruments - Anthropometric Measurements: Height and Body Mass, Waist and Hip Circumferences, Skinfold Thickness (Practical Exercises) - Calculation of Body Fat Percentage Based on Anthropometric Measurements Anthropometric Indices in Nutritional Assessment and Calculating Energy Requirements (Practical Exercises) (3 hours) Advanced Body Composition Assessment Methods – Practical Application of Bioelectrical Impedance Analysis (4 hours)
Recommended literature	National Health and Nutrition Examination Survey (NHANES). (2007), Anthropometry Procedures Manual, CDC. https://wwwn.cdc.gov/nchs/data/nhanes/20172018/manuals/2017_ Anthropometry_Procedures_Manual.pdf Kumagai, M., Yahagi, N. (2013). Basal Metabolic Rate. In: Gellman, M.D., Turner, J.R. (eds) Encyclopedia of Behavioral Medicine. Springer, New York, NY.

https://doi.org/10.1007/978-1-4419-1005-9 377

Heaney, J. (2013). Energy: Expenditure, Intake, Lack of. In: Gellman, M.D., Turner, J.R. (eds) Encyclopedia of Behavioral Medicine. Springer, New York, NY. https://doi.org/10.1007/978-1-4419-1005-9 454

Vellas B., Guigoz Y., Garry P.J., Nourhashemi F., Bennahum D., Lauque S., Albarede J-L., The mini nutritional assessment (MNA) and its use in grading the nutritional state of elderly patients, Nutrition, 1999; 15(2):116-122 https://doi.org/10.1016/S0899-9007(98)00171-3

Keller U. Nutritional Laboratory Markers in Malnutrition. Journal of Clinical Medicine. 2019; 8(6):775. https://doi.org/10.3390/jcm8060775

Kyle U.G., Bosaeus I., De Lorenzo A.D., Deurenberg P., Elia M. et al. Bioelectrical impedance analysis—part I: review of principles and methods, Clinical Nutrition, 2004; 23(5):1226-124. https://doi.org/10.1016/j.clnu.2004.06.004.