# Physical Exercise and Sports for the Disabled

## Prof. Vincenzo Palmieri; Prof. Riccardo Monti; Prof. Moreno Martinelli

### I Module: Prof. Vincenzo Palmieri – Prof. Riccardo Monti

***COURSE AIMS AND INTENDED LEARNING OUTCOMES***

The course combines theory lectures with practical classes to provide the student with up-to-date information on disability sports. Knowledge of the different pathological causes responsible for disability will inform the student of the aspects to take into account to correctly approach this particular group of people and their right to practice sport for both recreational and competitive reasons. To this end, each student will be offered the opportunity to enrich their cultural knowledge through coverage of the following topics.

– Physical exercise and rehabilitation for the disabled person: general considerations. From Dr. Ludwig Guttmann to the Paralympics.

* The different disabilities: visually impaired-blind athletes; athletes with a physical impairment, athletes with an intellectual-relational disability.

– Psychological aspects: motivation for sport.

– *The Italian Paraolympic Committee (CIP)*: rules, promotion and organization of competitive games.

– Technical aspects of the different competitive sports (light athletics, wheelchair tennis, table tennis, wheelchair basketball, torball, wheelchair fencing, goalball, etc.).

– Functional classification of visually impaired-blind athletes.

– Functional classification of physically disabled athletes (poliomyelitis amputees, spinal cord injury, brain injury, “Les Autres”).

– The disabled athlete: physiological aspects.

– Cardio-respiratory adjustments and adaptation in the disabled athlete.

– Functional testing: specific ergometers, lab tests, field tests.

– Certification of fitness for competitive sports: Ministerial Decree 4 March 1993: Table A – Table B.

– Main clinical issues (low blood pressure from exertion, neurogenic bladder dysfunction, bed sores, etc.).

– Athletes with intellectual-relational disabilities: objectives of physical exercise and sport therapy.

– Special Olympics International (SOI).

* Medical issues in young people with Down Syndrome.

***READING LIST***

Antonelli F, Savini A. *Psicologia dello Sport,* Edilombardo, Roma, 1987.

Michelini L. *Handicap e sport,* Società Ed Universo, Roma, 2009 (IIª ed.).

Versace G. *Con la testa e con il cuore si va ovunque*, Mondadori, 2013.

Cassioli D., *Il vento contro.* De Agostini, 2018*.*

Sagar I. *Le mie vite in gioco*. Add editore 2019.

Zeppilli P, Palmieri V, Bianco M, Gervasi S, Santoriello V. *Manuale di Medicina dello Sport,* CESI ed, Roma, 2020 (IVª ed.).

Palmieri V, Bianco M, Gervasi SF, Cuccaro F. *Medicina dello Sport,* CESI ed, Roma, 2021 (Iª ed.).

Porcellato F, Bursi M. *La rossa volante,* Baldini + Castoldi, 2022

Palmieri V. – Monti R. *Appunti e slides del corso*

***TEACHING METHOD***

Lectures, practical training.

***ASSESSMENT METHOD AND CRITERIA***

Students will be assessed by way of a written exam structured as follows:

– three open-ended questions on subjects covered in the lectures (the student receives their choice of a pre-filled sheet from the lecturer, which contains three questions);

The student's knowledge of the topics covered and their correct understanding of the course contents will be assessed.

The final grade is out of thirty and will take into account the accuracy and quality of the answers provided and will be averaged with the mark, also out of thirty, attained in the second module assessment (as indicated below).

***NOTES AND PREREQUISITES***

*Prerequisites*

Students must possess a basic knowledge of the anatomy and physiology of the various systems (in particular, cardiovascular, respiratory, neuromuscular, urinary, etc.).

Further information can be found on the lecturer's webpage at http://docenti.unicatt.it/web/searchByName.do?language=ENG, or on the Faculty notice board.

Module 2: *Prof. Moreno Martinelli*

***COURSE AIMS AND INTENDED LEARNING OUTCOMES***

Through teaching the specific methodologies by disability type, the course aims to provide the tools for operating effectively in terms of prevention, the strengthening of residual abilities, and the pursuing of competitive sports goals. The course investigates the overall and specific perspectives of participation in physical and competitive activities by those with physical and sensory disabilities and those with cognitive-relational disorders.

Intended learning outcomes

Knowledge and understanding

At the end of the course, students will know:

- the methods of intervention for the individual categories of physical and sensory disability;

- how to orient themselves in understanding the fundamental aspects of different sports adapted to people with disabilities;

Ability to apply knowledge and understanding

At the end of the course, students will know how to construct:

- physical and sports workout projects or programmes specific to the type of People of Reference from an educational point of view;

- focused on health;

- and also on sporting performance;

- with a view to enhancing residual skills and individual aptitudes.

“Autonomous judging skills”, “Communication skills” and “Self-learning skills"

Students will know how to:

- establish the extent and type of interventions appropriate for the individual or team in relation to the physical or sporting objectives;

- communicate effectively, especially in situations where sensory deficits are present;

- learn from the results obtained through personal intervention and to collaborate with the professional figures involved in the physical, sports and educational project.

***COURSE CONTENT***

Specific objectives of process, performance, result and goal setting.

* Didactic planning and programming: specific aspects, reference models and control tools. Observation as an instrument of investigation.
* Monitoring and evaluating the efficacy of physical and sports activity in people with spinal cord injuries, amputations, brain injuries.
* Monitoring and evaluating the efficacy of physical and sports activity in people with sensory deficits.
* Physical and sporting activities for people with intellectual-relational disabilities: aims and objectives of physical activity.
* Keynotes on physical and sporting activities for people with autism spectrum disorders, on the development and learning of physical skills for psychomotor and pre-sport models for children with disabilities, and on the inclusion processes for special students (SEN, with disabilities and specific learning disorders) through Adapted Physical Education (APE).
* The Para-Olympic landscape in Italy: organisation of the CIP and sports on offer.

*Course Skills Goals*

1. To learn how to apply knowledge in an individualised or contextualised project, collecting and processing solely original data in the changing field of sports learning and training processes, using tests and evaluation tools of specific parameters.
2. To adopt new or different didactic/methodological applications according to the types of disability, considering the level reached by participants, and learning how to work in the disciplines that are gradually entering the sphere of physical/sporting activities available to people with physical/cognitive-behavioural/sensory deficits.
3. To enhance residual abilities from an ecological perspective, underlining the importance of any progress/goals achieved in light of the different branches of motor knowledge (biomechanics, mechanics for aids, physiology, sports techniques, psychological and pedagogical approaches, sports ethics, etc.), putting the person at the centre of the process and processing relevant evaluations through observation, data collection and discussion with other professional figures.
4. To establish effective communication methods, using a specific vocabulary, with athletes, technicians, educators, psychologists and health practitioners, to operate effectively and safely in both preventive and performance areas.
5. To know aspects of the disciplines related to physical-sports practice through an evidence-based updating process, peer to peer comparison, and participation in specific events with an attitude aimed at growing a sports culture in the field of disability.

***READING LIST***

Ambrosin-Pellegatta*, Il gioco nello sviluppo e nella terapia psicomotoria,* Erickson, 2012.

Arrigoni, *Paralimpici. Lo sport per disabili: storie, discipline, personaggi*, Hoepli, 2008.

Bortoli-Cavasin-Conzon-Donati-Farinazzo-Maniero-Turatello, *Sport e attività motorie per disabili,* FISD, Veneto.

Cajola-A. Ciraci*,* *Didattica inclusiva*, Armando, 2013.

C. Castelli, *Resilienza e sport, dalla ricerca alla pratica in contesti di vulnerabilità*, Franco Angeli, 2020.

D’alonzo, *La differenziazione didattica per l’inclusione,* Erickson, 2016.

De Anna, *Processi formativi e percorsi di integrazione nelle scienze motorie,* Franco Angeli, 2009.

Martinelli, *Appunti e slides del corso,* 2023.

Menarini, *Blue book Astra Teach spa,* 2005.

Michelini, *Handicap e sport,* Società Ed Universo, Rome.

Murphy R.F., *Il silenzio del corpo*, Disability Studies Erickson, Trento, 2017

Niccolai, *Conoscere e affrontare i bisogni educativi speciali,* Ed G. D’anna, 2015.

Nicolosi, *Strategie didattiche per l’educazione motoria,* Franco Angeli, 2015.

Sibilio-Aiello*,* Formazione e ricerca per una didattica inclusiva, Franco Angeli, 2015.

Simonetta, *Il corpo che apprende,* Mimesis, 2014.

Saccavini-Boscolo, *Biomeccanica e bioenergetica della locomozione in carrozzina d’atletica e su handcycle,* New Magazine edizioni, 2007.

Zeppilli-Bianco-Palmieri-Santoriello, *Manuale di Medicina dello Sport,* CESI ed., Rome, 2020 (4th ed.).

***TEACHING METHOD***

- Lessons in the gym and in the classroom, including in the presence of external testimonials.

- The participatory frontal theoretical lectures with slides, will be enriched where possible by practical experiences in the field.

- Theoretical indications for planning will be presented in order to stimulate supervised projects that are also organised in a collaborative way.

- Peer-tutoring situations are envisaged for practical tasks in the gym, while simulated "blind-driving" situations will help in achieving physical objectives of different types (jumping, running, throwing and team activities).

***ASSESSMENT METHOD AND CRITERIA***

*Method*

A written exam (or oral exam if taken remotely) comprising 14 multiple-choice questions + one open-ended question on the topics of design, didactic scheduling and sports planning covered in the course.

Assessment criteria

The examination is the concrete way for students to demonstrate their knowledge of the basic elements and key concepts of the specific sports disciplines presented in the course and workshop activities from a methodological perspective, and of the educational-didactic approaches addressed for the different categories of disabilities.

***NOTES AND PREREQUISITES***

*Prerequisites*

Students should possess a basic knowledge of modern sports scheduling and general forms of planning. General skills in the principles of physical exercise are also required for sporting and competitive purposes.

Further information can be found on the lecturer's webpage at http://docenti.unicatt.it/web/searchByName.do?language=ENG or on the Faculty notice board.