PEDAGOGICAL PROJECT OF THE PHYSIOTHERAPY COURSE

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1. INSTITUTIONAL PROFILE

The FACULDADE SANTA MARCELINA (FASM) is a private, confessional, and independent higher education institution, maintained by the Associação Santa Marcelina and established by the Sisters of Santa Marcelina, a congregation of professed Religious Sisters of the Roman Catholic Apostolic Church.

The Associação Santa Marcelina is a private law association, confessional in nature, charitable and philanthropic, non-economic and non-profit, with an educational, cultural, and social assistance character. It was founded under the teachings and charism of Blessed Monsignor Luigi Biraghi, with its bylaws registered at the 1st Notary Office of Deeds and Civil Registry of Legal Entities of the District of São Paulo, under nº 340189, on December 11, 2007.

FASM is headquartered in the city of São Paulo and organized into two campuses: Perdizes and Itaquera.

The Perdizes campus, located in the western region of São Paulo, offers undergraduate, in-person programs in Visual Arts (Bachelor's degree), Art Education, Fine Arts (Licentiate), Music Education (Licentiate), Music (Bachelor's degree), and Fashion (Bachelor's degree).

The Itaquera campus, located in the eastern region of São Paulo, offers undergraduate, in-person programs in Business Administration, Accounting Sciences, Nursing, Physiotherapy, Medicine, Nutrition, Psychology, and Technology in Radiology and Aesthetics & Cosmetics.

1.1 Identification

Maintaining Institution

Name: Associação Santa Marcelina

Address: R. Itapicuru, 112 - Perdizes, São Paulo - SP, 05006-000

Maintained Institution

Name: Faculdade Santa Marcelina (FASM) – e-MEC code nº 0434

Address: R. Dr. Emílio Ribas, 89 - Perdizes, São Paulo - SP, 05006-020

Course Information

Course: Physiotherapy

Modality: Bachelor's Degree

Degree Awarded: Bachelor in Physiotherapy

SHIFTS AND VACANCIES PER SEMESTER

Morning	40
Evening	40
Total Vacancies	80

COURSE REGIME

Semester-based sequential system

ADMISSION REGIME

Admission through Semester Selection Process

COURSE DURATION

Minimum duration: 8 academic semesters

Maximum duration: 14 academic semesters

LOCATION

Itaquera Campus: Rua Cachoeira de Utupanema, 40 – Itaquera – São Paulo – CAPITAL

2. EDUCATIONAL CONTEXT

The Pedagogical Course Project (PPC) of the undergraduate program in Physiotherapy at Faculdade Santa Marcelina is a document with the purpose of presenting how the course is structured before the academic community. In this sense, it covers the didactic-pedagogical organization of the course, the teaching and tutorial staff, and the infrastructure available for its delivery. Thus, the PPC, aligned with the Institutional Development Plan – PDI, is the foundation of all actions and decisions of a course and, therefore, is the tool that should guide its management by the Course Coordination, the Course Collegiate, and the Structuring Teaching Core (NDE), both in the present and in the future, always seeking transformative education, based on comprehensive, humanistic, and technical-professional training.

This Pedagogical Project is based on the National Curriculum Guidelines for the Physiotherapy course, the current legislation for Higher Education, as well as on the mission, values, and institutional principles that have always guided Santa Marcelina's actions. It aims at training professionals able to fully and innovatively develop activities in the field. Furthermore, it proposes to train critical, active professionals capable of contributing to local, regional, and national development.

In this regard, Faculdade Santa Marcelina is committed to constant progress, quality teaching, and the training of its teaching and technical-administrative staff, the articulation between teaching and extension programs, course self-assessment programs, as well as the quality of its physical facilities: laboratories, library, classrooms.

Thus, the present PPC establishes a commitment to education, by providing access to Higher Education to an audience that needs quality and accessible training and, at the same time, meeting the demands of an increasingly complex and diverse social reality.

2.1 Justification for offering the course

In the view of Faculdade Santa Marcelina, the undergraduate course in Physiotherapy, within a social context, must operate through an ethical, creative, dynamic, and flexible stance, as well as deal with adversities, overcoming challenges, and making decisions that favor the organization in which our graduates will work.

Following this, the justification for offering the course is contextualized by presenting some significant data. Faculdade Santa Marcelina – FASM operates in the city of São Paulo, the largest metropolis in South America, one of the most developed locations in economic, social, cultural, industrial, and agricultural aspects. Today, the city of São Paulo has one of the best road, rail, port, and energy infrastructures in Brazil. São Paulo is the most populous and industrialized city in the country, and with these two conditions, it holds the status of a national metropolis.

The municipality of São Paulo faces the challenge of social and territorial inequalities. The intra-urban reality has been the focus of studies for public policy intervention. Thus, several dimensions of this reality are analyzed in light of the need to understand the urban dynamics of one of the most complex capitals in Brazil. The city of São Paulo brings together, at the same time, a high concentration of socially produced wealth and high levels of poverty, revealing a discrepant scenario of income distribution and access to goods and services.

According to Fundação SEADE, the municipality of São Paulo had, in 2023, a projected population of 11,429,865 inhabitants, and the metropolitan region of São Paulo had 21,252,384 inhabitants. (Source: Fundação SEADE/Perfil Seade.gov.br).

The number of enrollments in the city of São Paulo in 2021 was 425,639 in High School and 1,365,068 in Elementary School, totaling 1,790,707 students enrolled, according to IBGE data (https://cidades.ibge.gov.br/brasil/sp/sao-paulo/panorama). This contingent represents the demand of the city of São Paulo for Higher Education in the coming years.

The metropolitan area of São Paulo is among the main industrial centers of the continent, being the largest industrial concentration in South America, the largest wholesale and retail commercial center, as well as presenting a growing services sector.

As the driving force of São Paulo's economy, the Metropolitan Region of São Paulo is the ideal platform for business expansion throughout the Latin American market. At the state level, the region represents more than half of the industry (53.7%), 50% of trade, and 70.8% of the added value in services generated in the State. The region hosts the most diverse industrial segments, has a world-class service sector, and a highly developed trade. It is the financial center of Brazil and is home to the largest communication and media companies in the country.

São Paulo's financial market is among the main ones in the Americas. Several global consulting and accounting firms maintain branches in the capital. There is also a large concentration of law and marketing offices and advertising agencies. BOVESPA, where shares of national companies are traded, is located in São Paulo. The Commodities and Futures Exchange (BM&F) is the number one in Brazil in financial transactions and is headquartered in the city.

In parallel, in the context of the undergraduate course in Physiotherapy, teaching aims to associate knowledge construction with criticism of the knowledge produced, in a continuous and articulated process. Thus, it is conceived as a process of knowledge investigation, not as a process limited to content transmission; as a practice aimed at building the student's progressive autonomy in the pursuit of scientific and professional mastery of a specific field of knowledge.

The economic scenario we live in, combined with technological changes, makes it so that an undergraduate course requires future professionals to be attentive to economic, social, cultural, and innovative issues, based on solving the internal and/or external problems of the company where they work.

Thus, we train multifunctional professionals who have broad knowledge of all stages of processes and who understand the business sector in which the company operates, knowing all its operational logic.

In this sense, the undergraduate course in Physiotherapy aims to train professionals with multidisciplinary knowledge, capable and qualified for the professional practice of Physiotherapy, endowed with analytical and critical sense in line with the institutional profile and the labor market.

2.2 Institutional History

FASM is headquartered in the municipality of São Paulo and structured into two units: Perdizes and Itaquera. At the PERDIZES unit, located in the western region of São Paulo's capital, the following on-site undergraduate programs are offered: Visual Arts (bachelor's), Artistic Education, Music (licentiate), Music (bachelor's), and Fashion (bachelor's). At the ITAQUERA unit, located in the eastern region, it offers on-site undergraduate programs in

Administration, Accounting, Nursing, Physiotherapy, Medicine, Nutrition, and Psychology, and Technologist programs in Radiology and Aesthetics & Cosmetics.

The Congregation of the Marceline Sisters is a religious organization present in the following countries: Italy, its headquarters, Brazil, Switzerland, England, Albania, Benin, Canada, and Mexico.

In Brazil, activities began in 1912 and, since then, several associations have been established in the areas of education, health, culture, and social assistance. Although independent, the associations share values and principles, working in partnership and under the administration of the Marceline Sisters.

The Marceline educational charism, in its application to Brazilian reality, highlighted its role in higher education training. Although in its origins the Marcelines were more focused on educational action for childhood through adolescence, factors contributed to the development of higher education activities. In the 1920s and 1930s, in Brazilian society and in the educational environment, new experiences in educational action arose, with opportunities for the preparation of people at the higher education level in the fields of Arts and Music, as well as evangelizing outreach. A new impulse occurred, both due to the conditions of the surrounding environment and because their work had reached a significant level of maturity.

Faculdade Santa Marcelina began its activities in São Paulo, Capital, in 1929, initially under the name Instituto Musical Santa Marcelina, recognized by Federal Decree nº 2.704, of 05/31/1938, offering the undergraduate program in Music: specialties in Singing, Composition, Instrument, and Conducting.

The name was changed to Escola Superior de Música Santa Marcelina, by Federal Decree nº 64.354, of 04/15/1969. On this occasion, it also obtained authorization to offer the Licentiate in Music Education program, later transformed into the Artistic Education program, by Federal Decree nº 74.410/74.

In 1975, the Escola Superior de Artes Santa Marcelina began, recognized by Decree nº 47.671, of 01/19/1960, offering courses in Painting, Sculpture, and Drawing Teaching, later transformed into Artistic Education, with specializations in Drawing and Visual Arts, licentiate, according to Federal Decree nº 74.410, of 08/14/1974.

Through Opinion CFE nº 1314/80, bachelor's degrees in Visual Arts and Drawing were authorized, the latter accredited in 1987 exclusively for Fashion Design, according to CFE Opinions nºs 1.021/87 and 498/89.

The two institutions – Escola Superior de Música and Escola Superior de Artes Santa Marcelina – were unified by CFE Opinion nº 1043/80, accrediting Faculdade Santa Marcelina, according to MEC Ordinance nº 519, of August 31, 1981.

The re-accreditation of Faculdade Santa Marcelina was approved by Ordinance nº 1.365, of 12/19/2018 (DOU of 12/20/2018).

2.3 Institutional Declarations of the HEI

Faculdade Santa Marcelina has a mission and vision in line with that declared by its sponsor, Associação Santa Marcelina.

Mission

- Transform society in the light of the Gospel, with science as an instrument and means, offering the human being holistic training.

Vision

- The Marcelines, in communion with laypeople, aim to offer education, culture, health, and social assistance of excellence, in a spirit of family, based on ethical, moral, and Christian values, keeping up with the signs of the times.

Principles

- Faith in Jesus Christ according to the Scriptures
- Human dignity
- Faithfulness and obedience to the Magisterium of the Church and the Congregation
- Witness of life
- Spirit of family
- Firmness and gentleness

- Ethics, truth, and transparency
- Attention to the signs of the times
- Unity in diversity

Values

- Action and contemplation
- Dedication and commitment
- Welcoming and care
- Fraternal coexistence
- Cooperation and selflessness
- Simplicity and humility
- Justice and honesty
- Coherence of life
- Joy and enthusiasm in serving
- Scientific and cultural updating
- Professional competence
- Sustainability: economic, social, and environmental

3. ORGANIZATIONAL AND PEDAGOGICAL STRUCTURE

3.1 Institutional Policies within the Scope of the Course in accordance with the PDI

The construction of the Pedagogical Project of each undergraduate and technological undergraduate course, both on-site and distance learning at FASM, occurs collectively, centered on the student as the subject of learning and supported by the teacher as a facilitator and mediator of the teaching-learning process. The project is designed to ensure that graduates receive comprehensive and adequate training through the articulation between teaching, research, and extension, fully aligned with the Institution's PDI.

The theoretical-conceptual framework is to educate for citizenship, providing students with full participation in society through the implementation of methodologies in the

teaching-learning process, encouraging them to reflect on human singularities, their social groupings, and to learn how to learn.

At FASM, the development of interdisciplinary projects occurs with the aim of stimulating systemic vision and the acquisition of competencies. The teacher is recognized as an active agent who considers the student's educational and social reality and becomes a facilitator of the process, seeking to form, integrate, and harmonize the group.

One of the primary functions of teaching practice is to develop affirmative actions for human development, encompassing cultural, technical-scientific, and applied knowledge, as well as socio-environmental responsibility and citizenship, within a permanent process of construction, always bearing in mind that students have the right to learn and to transform knowledge. Thus, it is not enough to teach, but above all, to ensure that teaching results in student learning.

In accordance with the plan to meet pedagogical guidelines, professional practice is understood not as distinct situations or moments within the course, but as a teaching methodology that contextualizes and puts learning into action. It therefore involves activities developed throughout the course.

Extension activities and social projects are planned, including instrumental and instructional actions in various fields of knowledge, aiming to develop, alongside the pedagogical proposal of the course, the acquisition of essential and fundamental competencies for professional practice, while maintaining a focus on civic education. Similarly, students are encouraged to participate in exhibitions, professional weeks, technical-scientific fairs, symposia, scientific weeks, academic congresses, and cultural presentations, all planned and scheduled during the academic year.

Likewise, the Pedagogical Project of the Physiotherapy undergraduate course includes the narratives set forth in the DCNs.

In compliance with the National Curricular Guidelines, the Pedagogical Project of each course encompasses knowledge related to both general and specific training, using technologies and innovative strategies. From the beginning of the course, students

participate in technical visits and social activities, aiming to bridge theoretical and practical content and immerse the student in the professional reality. Moreover, the curricularized extension integrates students into the community, seeking to transform actions into a modifying element of the surrounding reality. In this context, the DreamShaper platform is used as a tool for monitoring and finalizing projects, allowing real-time documentation and the generation of final reports.

Furthermore, regarding successful practices, the Preparaedu Platform offers students and teachers the innovative experience of building preparatory questions for internal and external evaluations, including ENADE.

Students of the Physiotherapy program also benefit from a solid Internationalization program, enabling them to study up to 25 languages through the Altíssima Language Platform.

3.2 Course Objectives

General Objective

Ensure a generalist education for physiotherapy professionals, capable of working in Health Education to promote, protect, and restore health, integrating actions at different levels, both individually and collectively, in a competent, humanistic, ethical, and innovative manner, prepared to operate at all levels of health care—promotion, prevention, treatment, rehabilitation, and social inclusion.

The graduate of the Physiotherapy course should be able to:

Specific Objectives

- Interpret reports and complementary exams in order to elaborate the physiotherapeutic diagnosis;
- Outline individual physiotherapeutic treatment based on the diagnosis;

- Reassess the patient after treatment, modifying approaches whenever the adopted therapy does not yield the desired effect, or discharging the patient if the result has been achieved;
- Identify when it is necessary to refer the patient to related specialties;
- Work in multiprofessional and interprofessional teams, valuing each member's competencies;
- Care for patients as a whole, not in parts;
- Clarify and guide the patient and their family about the physiotherapeutic treatment and the pathology in question;
- Issue reports, opinions, certificates, and statements;
- Maintain confidentiality of the patient's identity and information;
- Develop activities of social and scientific impact, such as fairs, lectures, and congresses;
- Act with scientific grounding, responsibility, creativity, citizenship, moral and professional ethics;
- "Strengthen the articulation of theory with practice, valuing individual and collective research, as well as internships and participation in extension activities." (Resolution CNE/CES nº 184/2006).

3.3 Graduate Profile

The professional profile defined by Faculdade Santa Marcelina for graduates of the Physiotherapy undergraduate course is aligned with RESOLUTION Nº 559, OF SEPTEMBER 15, 2017, of the National Curricular Guidelines for Physiotherapy:

Article 3 – The bachelor in Physiotherapy will have a generalist, humanistic, critical, creative, reflective, and ethical profile, able to act at different levels of complexity and health care, based on the best scientific evidence, intellectual rigor, and technological advances, resulting from the professional identity built throughout the training process. The bachelor in Physiotherapy must be a professional:

I – Committed to the Unified Health System (SUS), aiming at the functional health of individuals and the community, at different levels of complexity, through the contextualized analysis of personal and environmental factors in situations involving the health-disease process, with appropriate knowledge and resources;
II – Sensitive to the sociocultural, sociodemographic, and socioeconomic realities of people in their context; empathetic, attentive, and engaged with public policies, social, cultural, epidemiological, and environmental issues, considering sustainability and the principle of cost-effectiveness;
III – Proactive, communicative, and collaborative in interdisciplinary and interprofessional teamwork, acting as a health promoter and educator in physiotherapeutic practice with the person, their family, and community;
IV – With an investigative and innovative stance, intellectual autonomy, attentive to technological innovations and knowledge production, promoting changes in health conditions for the benefit of society;
V – Ethical in professional practice, respecting the principles of bioethics, deontology, and scientific knowledge, committed to the health needs of individuals and collectives;
VI – A manager of systems, health services, and physiotherapeutic care, of health care and continuing education; entrepreneurial, a leader, autonomous, proactive, politically engaged, and organized in professional activities, guided by efficiency, efficacy, and effectiveness;
VII – Committed to lifelong education, both personal and collective, with an investigative and innovative posture, intellectual autonomy, and attentive to technological innovations and knowledge production to improve health conditions for the benefit of society.

The Physiotherapy course aims to foster critical awareness and the ability to discuss and reflect on concepts and values, requiring professionals who deal with the public at all social and cultural levels to have knowledge of human relationships, communication skills, humanity, patience, responsibility, common sense, creativity, honesty, and ethics.

The Physiotherapist must be able to evaluate, diagnose, plan, prescribe, perform, and discharge physiotherapeutic treatment, as well as promote health promotion and prevention, know the guidelines for coordinating teams of physiotherapists and interns, remain

constantly updated in biotechnology, and be able to participate in scientific and academic events, among others.

Graduates from FASM must also demonstrate, among other personal requirements, professional ethics, responsibility, versatility and creativity, organization, the ability to work in multiprofessional teams and with patients, and the capacity to choose the most appropriate treatment, as well as the professionalism to recognize their own limitations and the patient/client's needs, referring them to the most suitable professional.

As health professionals, Physiotherapists can work at various levels of care, such as physiotherapy clinics, sports clubs and organizations, long-term care institutions, rehabilitation centers, private practices, companies, spas, hospitals, home care, and aesthetic clinics. They may also work in the administration and management of physiotherapy services, in educational areas, and in technical-scientific development.

Furthermore, the graduate profile must be under constant evaluation and revision by the HEI and its NDE, in order to monitor and plan for new functions in relation to the demands presented by the job market.

3.4 Curriculum Matrix

The curriculum matrix of the Physiotherapy undergraduate course meets the National Curricular Guidelines, the professional profile of graduates, and considers flexibility, interdisciplinarity, methodological accessibility, and compatibility with the total workload of the course. The training path highlights the articulation between theory and practice.

The construction of a curriculum matrix should not be understood merely as a list of curricular components or teaching-learning activities, but as the establishment of a field of inquiry into relevant and motivating themes for professional practice. Its foundation depends not only on compliance with current legislation but also on a development plan for intellectual, socio-emotional, and practical skills and competencies.

Connections between teaching and extension occur in an integrated manner, especially following the implementation of curricularized extension, as established in Resolution CNE/CES nº 7, of December 18, 2018. The course promotes the articulation between theory and practice through guided activities within disciplines that simulate labor market demands, and through Extension, where students can apply what they have learned in the classroom. In extension activities, students can diagnose problems affecting society and develop projects that benefit it.

Within the context of course completion, the relationship between theory and practice is fundamental to the training process. Theory is indispensable for learning, as it provides students with the foundations of knowledge in the field and guides their professional trajectory.

Supervised Internship follows its own regulations, presented to students at the beginning of each semester for their awareness and agreement.

Thus, the curricular structure and design were developed to support projects aligned with the institution's identity, mission, and objectives, as well as to foster innovation, the use of modern educational technologies, knowledge production, and participation in community activities and commitments.

The curricular structure consists of 4000 clock hours, distributed over 8 semesters (4 years): 2800 hours of coursework, 800 hours of supervised internship, 400 hours of extension, and hours of Complementary Activities.

Diversity and Methodological, Pedagogical, and Attitudinal Accessibility will be addressed transversally, especially in disciplines related to inclusion, diversity, ethnic-racial education, and human rights education, as well as in Complementary Activities and Extension.

Curricular flexibility implies training students in an environment open to the new demands of different fields of knowledge and professional practice, bringing dynamism and diversity to undergraduate curricula.

The course's curriculum organization, in line with the DCNs, will encompass curricular flexibility, present in elective subjects, complementary activities, extension, as well as in disciplines that include activities such as seminars, workshops, social actions, internships, and lectures on current topics. These disciplines also promote contextualization.

The main goals of curricular flexibility include the development of student autonomy and the exploration of in-depth concepts linked to interdisciplinarity and multidisciplinarity.

In this perspective, curricular flexibility allows students to be more participative during their degree, providing training within a broad context to meet the new demands of various areas of scientific knowledge and professional practice. In other words, it brings dynamism and diversity to undergraduate curricula.

3.4.1 Curricularization of Extension

Connections between teaching and extension occur in an integrated manner, especially following the implementation of curricularized extension, as established in Resolution CNE/CES nº 7, of December 18, 2018. The course promotes articulation between theory and practice in most subjects, with the practical outcome of learning being returned to the community through extension activities.

Extension is organized action led by Higher Education Institutions, aimed at fostering interaction between society and students, professors, and staff involved in undergraduate programs. This interaction aims to positively impact society, fostering mutual development among students, Higher Education Institutions, and other stakeholders in the production of scientific knowledge at local, regional, and national levels, linked to national development policies.

Extension activities are defined as interventions that directly involve external communities and are linked to student training, whether initiated by the HEI itself or in partnership with other institutions.

In the Physiotherapy course, the curriculum matrix includes 400 hours of extension activities, representing 10% of the total workload, as required by Resolution CNE/CES nº 7, of December 18, 2018, which establishes national guidelines for Extension in Brazilian Higher Education.

To fulfill the required workload for this curricular component, extension projects in the Physiotherapy program are aligned with course content and the competencies to be developed for graduate training. These projects aim to actively engage students in the teaching-learning process. The following strategies are adopted:

- Interdisciplinary cultural project;
- Organization of events, such as Physiotherapy Week, technical visits, and social actions;
- Organization of exhibitions of projects developed throughout the semester;
- Presentation of final graduation projects.

To ensure compliance with curricularized extension, projects are registered on the DreamShaper platform for documentation and evidence purposes. At the end of each project, the platform generates a document compiling all information produced throughout its development.

The extension product linked to each curricular unit will be an analysis and recognition project aimed at identifying and prioritizing problems suitable for intervention within the target social group. Subsequently, this project will provide feedback to the community on the identified issues in various forms, such as courses, workshops, events, services, among others, always focusing on community interaction and bringing academic practice into the social sphere.

Learning assessment will be conducted individually and/or collectively throughout the training process. Evaluation instruments and criteria must be explicitly stated in the Teaching Plan of each academic unit, prepared by the professor.

3.4.2 Interdisciplinarity

Interdisciplinarity is evidenced through a set of interconnected subjects essential to the practice of the profession, organized in the curriculum matrix across the basic, professional, quantitative, and complementary training cores. This provides students with opportunities to learn about subjects within the complementary training core, covering content and themes such as environmental education, social responsibility and sustainability, ethnic-racial education, human rights, among others. This fosters the development of an educational profile in students, concerned with societal issues and enabling them to cultivate a reflective perspective on these situations, progressively developing autonomous and intellectual skills.

Thus, interdisciplinarity offers a new perspective on knowledge, viewing the individual as a whole. It corresponds to an approach in which teaching methods consider the student's knowledge construction, as well as lived experiences, ensuring comprehensive learning that transcends disciplinary boundaries.

In the established curriculum structure, interdisciplinarity is addressed particularly in the following aspects:

- Teaching and learning tools used by professors, including case discussions, multidisciplinary and multiprofessional evaluations, internal symposia, and encouragement for participation in scientific events.

Interdisciplinary activities defined in this PPC are mandatory and will be guided and evaluated by the team of professors and tutors from different fields of knowledge with which students interact. At the beginning of each semester, course professors, through the NDE (Núcleo Docente Estruturante), will define the interdisciplinary themes to be developed in extension and course subjects, which should be considered in relation to the learning units and transversal themes included in the curriculum matrix.

Therefore, it is clear that the proposed curriculum matrix considers flexibility, interdisciplinarity, methodological accessibility, and compatibility with the total workload (in clock hours), highlighting the articulation of theory with practice, offering elective subjects,

clearly articulating curricular components within the training path, and presenting demonstrably innovative elements.

The content comprising the Physiotherapy curriculum matrix complies with the National Curricular Guidelines and current legislation. It is constantly updated in response to social demands and legal changes, with workloads appropriate to its nature and adequate bibliography.

Any changes are discussed and defined by the NDE after analysis. Content is made available to students through Teaching Plans, which include: syllabus, general objectives, intended competencies, program content, methodology, evaluation, bibliography, and teaching schedule.

According to the National Curricular Guidelines, the Physiotherapy undergraduate course must be organized into three dimensions and domains:

I – Physiotherapeutic health care

II – Management, entrepreneurship, and innovation in health

III – Education for life

3.4.3 Curriculum Matrix

The Physiotherapy curriculum matrix was carefully designed to meet student training needs and labor market demands. It is based on the following principles: flexibility, interdisciplinarity, methodological accessibility, and articulation of theory with practice.

It is important to note that due to institutional workload differences between morning and evening shifts, the following sections provide the curriculum matrix for the morning program, followed by the evening program.

The morning program is completed in 8 semesters, with 6 class hours per day, from 7:30 a.m. to 12:40 p.m., distributed across semesters as follows:

Table 1 – Curriculum Matrix of the Physiotherapy course morning

CURRICULUM MATRIX OF THE PHYSIOTHERAPY COURSE MORNING 2023						
SEM	DISCIPLINE	THEO	PRACT	EXT	e-LEA	TT
1º	PHILOSOPHICAL ANTHROPOLOGY				40	40
	ANATOMY	40	40			80
	BIOCHEMISTRY	40				40
	CYTOLOGY, HISTOLOGY AND EMBRIOLOGY	40	20			60
	FOUNDATIONS OF PUBLIC HEALTH	40				40
	HISTORY AND FOUNDATIONS OF PHYSIOTHERAPY	60				60
	PORTUGUESE LANGUAGE				40	40
	ENVIRONMENT AND HEALTH	40				40
	MICROBIOLOGY AND IMMUNOLOGY	40	20			60
	INTERDISCIPLINARY EXTENSION I			**20**		**20**
TOTAL		**300**	**80**	**20**	**80**	**480**
2º	ANATOMY OF THE LOCOMOTOR SYSTEM	40	40			80
	PALPATORY ANATOMY	20	20			40
	GENERAL KINETIC-FUNCTIONAL ASSESSMENT	20	40			60
	BIOPHYSICS	40				40
	HUMAN PHYSIOLOGY	40	20			60
	PREVENTIVE AND OCCUPATIONAL PHYSIOTHERAPY	20	20			40
	SOCIOLOGY				40	40
	METODOLOGY	40				40
	NEUROANATOMOPHYSIOLOGY	20	40			60
	GENERAL PATHOLOGY	20	40			60
	INTERDISCIPLINARY EXTENSION II			80		80
TOTAL		**260**	**220**	**80**	**40**	**600**
3º	APPLIED KINETIC-FUNCTIONAL ASSESSMENT	20	60			80
	KINESIOLOGY	40	40			80
	GENERAL KINESIOTHERAPY	20	60			80
	ELECTROTHERMOPHOTOTHERAPY	40	60			100
	COMPLEMENTARY EXAMS	60				60
	EXERCISE PHYSIOLOGY	40	20			60
	MANUAL THERAPEUTIC RESOURCES	20	40			60
	INTERDISCIPLINARY EXTENSION III			60		60

TOTAL		**240**	**280**	**60**		**580**
4º	APPLIED KINESIOTHERAPY	20	40			60
	ELECTIVE I	40				40
	PHARMACOLOGY	40				40
	AQUATIC PHYSIOTHERAPY	20	20			40
	CARDIOVASCULAR PHYSIOTHERAPY	40	40			80
	NEUROLOGICAL PHYSIOTHERAPY	20	60			80
	TRAUMATO-ORTHOPEDIC PHYSIOTHERAPY	20	80			100
	SYSTEMS PATHOLOGY	40				40
	PROSTHESIS AND ORTHOSIS	20	20			40
	INTERDISCIPLINARY EXTENSION IV			60		0
TOTAL		**260**	**260**	**60**		**580**
5º	ELECTIVE II	40				40
	PHYSIOTHERAPY IN GERIATRICS	20	40			60
	PHYSIOTHERAPY IN NEONATOLOGY	20	40			60
	PHYSIOTHERAPY IN RHEUMATOLOGY	20	40			60
	PHYSIOTHERAPY IN PUBLIC HEALTH AND HOME CARE	60				60
	PHYSIOTHERAPY IN WOMEN'S HEALTH	20	40			60
	HEALTH MANAGEMENT	40				40
	NEUROFUNCTIONAL PHYSIOTHERAPY	20	40			60
	RESPIRATORY PHYSIOTHERAPY	20	60			80
	INTERDISCIPLINARY EXTENSION V			60		60
TOTAL		**260**	**260**	**60**		**580**
6º	EPIDEMIOLOGY AND BIOSTATISTICS	40				40
	DERMATOFUNCTIONAL PHYSIOTHERAPY	20	60			80
	PHYSIOTHERAPY IN ONCOHEMATOLOGY AND PALLIATIVE CARE	60				60
	HOSPITAL PHYSIOTHERAPY AND BIOSAFETY	20	20			40
	PHYSIOTHERAPY IN CHILD HEALTH	20	60			80
	SPORTS PHYSIOTHERAPY	20	60			80
	APPLIED PSYCHOLOGY TO THE DIMENSION OF CARE	40				40
	BRAZILIAN SIGN LANGUAGE (LIBRAS)	40				40
	ETHICS AND DEONTOLOGY	40				40
	INTERDISCIPLINARY EXTENSION VI			80		80
TOTAL		**320**	**200**	**80**		**600**
7º	SUPERVISED INTERNSHIP IN PHYSIOTHERAPY I		480			480
	INTERDISCIPLINARY EXTENSION VII			60		60

	RESEARCH METHODOLOGY FOR THE DEVELOPMENT OF THE FINAL PAPER (TCC)		40			40
TOTAL			**520**	**60**		**580**
8º	SUPERVISED INTERNSHIP IN PHYSIOTHERAPY II		480			480
	INTERDISCIPLINARY EXTENSION VIII			60		60
	RESEARCH METHODOLOGY FOR THE DEVELOPMENT OF THE FINAL PAPER (TCC)		40			40
TOTAL			**520**	**60**		**580**
TOTAL COURSE						**4580**

The evening period is completed in 8 semesters with 5 class hours per day, from 6:20 p.m. to 10:40 p.m., so that in the 7th and 8th semesters students also carry out supervised internship from 1:00 p.m. to 6:00 p.m., distributed per semester as follows:

Table 2 – Curriculum Matrix of the Physiotherapy course evening

CURRICULUM MATRIX OF THE PHYSIOTHERAPY COURSE EVENING 2023						
SEM	DISCIPLINE	THEO	PRACT	EXT	e-LEA	TT
1º	ANATOMY	40	40			80
	PHILOSOPHICAL ANTHROPOLOGY	40			40	40
	BIOCHEMISTRY	40				40
	CYTOLOGY, HISTOLOGY AND EMBRYOLOGY	40	20			60
	FUNDAMENTALS OF PUBLIC HEALTH	40				40
	HISTORY AND FUNDAMENTALS OF PHYSIOTHERAPY	60				60
	PORTUGUESE LANGUAGE				40	40
	ENVIRONMENT AND HEALTH	40				40
	MICROBIOLOGY AND IMMUNOLOGY	40	20			60
	INTERDISCIPLINARY EXTENSION I			**20**		**20**
TOTAL		**300**	**80**	**20**	**80**	**480**
2º	ANATOMY OF THE LOCOMOTOR SYSTEM	40	40			80
	PALPATORY ANATOMY	20	20			40
	BIOPHYSICS	40				40
	HUMAN PHYSIOLOGY	40	20			60
	METHODOLOGY	40				40
	SOCIOLOGY				40	40

	NEUROANATOMOPHYSIOLOGY	20	40			60
	GENERAL PATHOLOGY	20	40			60
	INTERDISCIPLINARY EXTENSION II			80		80
TOTAL		**220**	**160**	**80**	**40**	**500**
3º	GENERAL KINETIC-FUNCTIONAL ASSESSMENT	20	40			60
	KINESIOLOGY	40	40			80
	GENERAL KINESIOTHERAPY	20	60			80
	EXERCISE PHYSIOLOGY	40	20			60
	PREVENTIVE AND OCCUPATIONAL PHYSIOTHERAPY	20	20			40
	SYSTEMS PATHOLOGY	20	20			40
	MANUAL THERAPEUTIC RESOURCES	20	40			60
	INTERDISCIPLINARY EXTENSION III			60		60
TOTAL		**180**	**240**	**60**		**480**
4º	APPLIED KINETIC-FUNCTIONAL ASSESSMENT	20	60			80
	APPLIED KINESIOTHERAPY	20	40			60
	ELECTROTHERMOPHOTOTHERAPY	40	60			100
	PHARMACOLOGY	20	20			40
	CARDIOVASCULAR PHYSIOTHERAPY	40	40			80
	NEUROLOGICAL PHYSIOTHERAPY	20	60			80
	INTERDISCIPLINARY EXTENSION IV			60		60
TOTAL		**160**	**280**	**60**		**500**
5º	ETHICS AND DEONTOLOGY	40				40
	NEONATAL PHYSIOTERAPY	20	40			60
	WOMEN'S HEALTH PHYSIOTHERAPY	20	40			60
	NEUROFUNCTIONAL PHYSIOTHERAPY	20	40			60
	RESPIRATORY PHYSIOTHERAPY	20	60			80
	TRAUMATO-ORTHOPEDIC PHYSIOTHERAPY	20	80			100
	PROSTHETICS AND ORTHOTICS	20	20			40
	INTERDISCIPLINARY EXTENSION V			60		60
TOTAL		**160**	**280**	**60**		**500**
6º	ELECTIVE I	40				40
	SUPPLEMENTARY EXAMS	40	20			60
	PUBLIC HEALTH PHYSIOTHERAPY AND HOME CARE	40	20			60
	DERMATOFUNCTIONAL PHYSIOTHERAPY	20	60			80
	RHEUMATOLOGY PHYSIOTHERAPY	20	40			60
	HOSPITAL PHYSIOTHERAPY AND BIOSAFETY	20	20			40

	CHILD HEALTH PHYSIOTHERAPY	20	60			80
	INTERDISCIPLINARY EXTENSION VI			80		80
TOTAL		**200**	**220**	**80**		**500**
7º	SUPERVISED PHYSIOTHERAPY INTERNSHIP I		480			480
	GERIATRIC PHYSIOTHERAPY	20	40			60
	AQUATIC PHYSIOTHERAPY	20	20			40
	ONCOHEMATOLOGY AND PALLIATIVE CARE PHYSIOTHERAPY	20	40			60
	SPORTS PHYSIOTHERAPY	20	60			80
	RESEARCH METHODOLOGY FOR THE DEVELOPMENT OF THE THESIS (TCC)		40			40
	APPLIED PSYCHOLOGY TO THE DIMENSION OF CARE	40				40
	INTERDISCIPLINARY EXTENSION VII			60		60
TOTAL		**120**	**680**	**60**		**860**
8º	SUPERVISED PHYSIOTHERAPY INTERNSHIP II		480			480
	RESEARCH METHODOLOGY FOR THE COMPLETION OF THE THESIS (TCC)	20	20			40
	HEALTH MANAGEMENT	40				40
	EPIDEMIOLOGY E STATISTICS	40				40
	ELECTIVE II	40				40
	BRAZILIAN SIGN LANGUAGE (LIBRAS)	40				40
	INTERDISCIPLINARY EXTENSION VIII			60		60
TOTAL		**180**	**500**	**60**		**740**
TOTAL COURSE						**4580**

INTEGRALIZATION	H/A	H/R	%
Disciplines (Theorical and Practical)	3020	2516	62.9%
Extension	480	400	10%
Supervised Internship	960	800	20%
Complementary Activities	220	184	4,6%
e-Learning	120	100	2,5%
TOTAL	**4800**	**4000**	**100**

ELECTIVES	CH
Imaging	40
Forensic Physiotherapy	40
Psychomotricity	40
Eastern Techniques in Physiotherapy	40

3.5 Curricular Content

The subjects incorporated into the curriculum are appropriate regarding their content/syllabus and bibliography.

Themes related to environmental education policies, human rights education, education on ethnic-racial relations, and the teaching of Afro-Brazilian, African, and Indigenous history and culture are included transversally in specific topics. They are also incorporated into complementary activities and extension programs, as demonstrated in the PPC.

3.5.1 Legal Requirements

In the design and implementation of the curricular structure, the following current legislations are observed:

LIBRAS: Decree No. 5.626, of 12/22/2005, will be taken on a regular basis as a course subject.

Environmental education policies (Law No. 9.795, of 04/27/1999, and Decree No. 4.281, of 06/25/2002): In the subject *Environment and Health* included in this program's curriculum, content will be developed that enables the study of the principles established in art. 4 of the referenced Law: the conception of the environment in its entirety, considering the interdependence between the natural, socioeconomic, and cultural environments under the perspective of sustainability; an articulated approach to local, regional, national, and global environmental issues; and the recognition and respect for plurality and individual and cultural diversity. Furthermore, in professional knowledge subjects, faculty members consistently encourage the creation of sustainable materials aimed at home care and addressing environmental issues in their entirety.

Education on ethnic-racial relations (CNE/CP Resolution No. 01, of 06/17/2004): In *Philosophical Anthropology* courses, content is developed that allows for the dissemination and production of knowledge, as well as attitudes, behaviors, and values regarding ethnic-

racial plurality. Likewise, it ensures knowledge that enables the recognition and appreciation of the identity, history, and culture of Afro-Brazilians.

Human Rights Education (CNE/CP Opinion No. 8 of March 6, 2012, which originated Resolution CNE/CP No. 1 of May 30, 2012) is delivered in the following subjects: *Ethics*, *Ethics and Professional Legislation*, and in the *Interdisciplinary Extensions I, II, III, IV, V, VI, VII,* and *VIII*.

Rights of individuals with Autism Spectrum Disorder (Law No. 8.112, of December 11, 1990) – Pedagogical and informational strategies are developed by the Institution through seminars and lectures aimed at faculty, students, and administrative staff. In the Physiotherapy bachelor's program, in addition to the coverage in the *Applied Psychology* course on the dimension of care, the topic is also addressed in the courses *Child Health* and *Neurological Physiotherapy*.

It is important to emphasize that all the themes described above will also be present in academic extension activities and transversally in Complementary Activities, as well as in compliance with Law No. 13.663 of May 14, 2018, amending art. 12 of Law No. 9.394 of December 20, 1996. Measures will be developed for raising awareness, prevention, and combating all types of violence, as well as promoting a culture of peace.

It should be noted that the *LIBRAS* course is offered as an elective subject, as described in Decree No. 5.626 of December 22, 2005.

The established curriculum aims to train generalist professionals with an education that implies the acquisition of essential knowledge, skills, and competencies necessary for lifelong learning throughout their professional career. This enables students to deepen their studies in the different areas of Physiotherapy education while obtaining scientific, pedagogical, technical, and professional qualifications.

In this sense, the Physiotherapy program seeks to articulate curricular content with practice. In addition to providing laboratories for the Physiotherapy area, the HEI also makes available software for students to use starting from the 1st semester in courses such as *Anatomy*, *Locomotor System Anatomy*, *Biosafety*, and *Respiratory Physiotherapy*. The objective is to offer Physiotherapy students the opportunity to reconcile theory and practice and to provide real-life experiences aligned with their future professional routine.

By using software, students have the opportunity to put into practice all their theoretical knowledge, with the professor acting only as a facilitator in the teaching-learning process. In this way, students can explore new learning possibilities, having the professor as a guide in their knowledge path.

Through these practical activities in Physiotherapy laboratories, students will stand out in the job market, which will lead them to be in contact with recent and innovative knowledge.

With the perspective of integrating real-life experience with the Physiotherapy program, it is highlighted that the curricular content established for the program—based on the National Curriculum Guidelines and the analysis and study conducted by the program coordination along with the NDE, regarding objectives and graduate profile—aligns with the competencies and skills necessary to train an analytical, civic-minded, entrepreneurial, and socially responsible professional.

The following section presents the syllabi, basic, and supplementary bibliography of the Physiotherapy Program reference curriculum.

3.5.2 Syllabi

Below are presented the syllabi and basic and supplementary references of the subjects that make up the program's curriculum, in alphabetical order.

Table 3 – Syllabus of the reference curriculum for the Physiotherapy Course

Course: ANATOMY
Workload: 80 h/class

Syllabus

Study of the general structure of the human body: morphology, arrangement, and relationships of organs and systems in general, predominantly from the perspective of Systemic or Descriptive Anatomy, correlating it with Physiotherapy.

OBJECTIVES

General Objective

To associate the structure with the functioning of the human body, understanding normal anatomical and physiological processes in scientific investigation.

Specific Objectives

To understand, recognize, and identify the importance of a theoretical-practical structure in the rehabilitation process.

CONTENT

- Anatomical nomenclature, concepts of normality and abnormality, division of the human body, planes, and axes of body construction.
- Cardiovascular System: heart, arteries, veins, and lymphatics.
- Respiratory System: upper airways, nose, nasopharynx, oropharynx, laryngopharynx, vestibular and vocal folds. Trachea, bronchi and bronchioles, pulmonary alveoli, lungs, pleurae, vascularization, and innervation.
- Digestive System: mouth, esophagus, stomach, intestines, accessory glands of the digestive system.
- Urogenital System: kidneys, ureters, urinary bladder, urethra. External genital organs, male and female. Male = scrotum, testes, epididymis, vas deferens, seminal vesicles, prostate, bulbourethral glands. Female = vagina, uterus, uterine tubes, ovaries. Innervation and vascularization of male and female genitalia.
- Endocrine System: endocrine glands, hypothalamus, pituitary gland, and target glands (thyroid, parathyroid, adrenal glands, pancreas, kidneys, ovaries and testes, placenta).
- Musculoskeletal System: basic knowledge of bones, muscles, and joints. Theoretical class.
- Central Nervous System: cerebral hemispheres, meninges, sulci and gyri, diencephalon, brainstem, cerebellum, and spinal cord. CNS vascularization.
- Peripheral nerves: formation of the cervical, brachial, and lumbosacral plexuses and their nerves and innervation sites. Sensory system: eye and ear.

BASIC BIBLIOGRAPHY

Larosa PRR, Neto JG. **Atlas de Anatomia Humana Texto e Atlas**. Rio de Janeiro: Guanabara Koogan, 2016.
Netter FH. Netter **Atlas de Anatomia Humana**. São Paulo: Elsevier, 2018.
Sobotta J. Sobotta **Atlas de Anatomia Humana**. Rio de Janeiro: Guanabara Koogan, 3 vols., 2013.

SUPPLEMENTARY BIBLIOGRAPHY

Goss CM. Gray **Anatomia**. 29th Edition. Rio de Janeiro: Guanabara Koogan, 2013.
Machado A, Haertel LM, Campos GB. **Neuroanatomia Funcional**. 3rd Ed. São Paulo: Atheneu, 2014.
Tortora GJ, Grabowski SR. **Princípios de Anatomia e Fisiologia**. 9th Ed. Rio de Janeiro: Guanabara Koogan, 2002.

Course: ANATOMY OF THE LOCOMOTOR SYSTEM
Workload: 80 h/classes

SYLLABUS

Study of the generalities and specificities of the locomotor system and its applicability to human movement, through descriptive methods applied to integrate anatomy with other sciences.

OBJECTIVES
Provide students with the ability to identify, classify, and describe the structures of the locomotor system (bones, joints, and muscles), relating theory and practice.

CONTENT

- Planes of delimitation and section of the human body; Body axes; Skeletal system: concept, functions, types, division, number and classification of bones, types of bone substances, development, and nutrition. Muscular system: concept, skeletal muscle, smooth muscle, and cardiac muscle. Muscle origins and insertions, muscle classification, accessory structures of the muscular system.
- Articular system: concept, classification, types of joints (capsules, discs, and menisci), main movements performed by the joints.
- Appendicular skeleton, upper limb: clavicle, scapula, humerus, radius, ulna, carpal bones, metacarpals, and phalanges, sesamoids of the upper limb.
- Upper limb joints and muscles (origin, insertion, and innervation).
- Appendicular skeleton, lower limb: hip bones (ilium, ischium, and pubis), femur, tibia, fibula, tarsal bones, metatarsals, and phalanges. Sesamoids of the lower limb.
- Axial skeleton: thoracic cage, anatomical structure of the bones that make up the thoracic framework.
- Vertebral column: anatomical structure of the vertebral column, as well as anatomical landmarks of the vertebrae.

BASIC BIBLIOGRAPHY

Hutchinson, Mark. **Anatomia de lesões no esporte: um guia ilustrado**. Barueri, SP: Manole, 2011.
Marques, Elaine Cristina Mendes (Org.). **Anatomia e fisiologia humana**. 2nd ed. São Paulo, SP: Martinari, 2015.
Albuquerque, Alessandro Carielo de et al. **Anatomia humana axial e do aparelho locomotor: texto e atlas**. São Paulo, SP: Roca, 2010.

SUPPLEMENTARY BIBLIOGRAPHY

Moore, K. L. **Anatomia Orientada para a Clínica**. Rio de Janeiro: Guanabara Koogan, 2014.
Calais-Germain, Blandine; Volpon, José Batista (Ed.). **Fundamentos de ortopedia e traumatologia**. São Paulo, SP: Atheneu, 2014.
Calais-Germain, B.; Lamotte, A. **Anatomia para o movimento**. 2nd ed. Barueri: Manole, 2010/02.

Course: PALPATORY ANATOMY
Workload: 40 h/classes

SYLLABUS

Palpatory and localization parameters of bones and their landmarks, articular structures, musculotendinous structures, vascular structures, and peripheral nerves, correlating with clinical practice.

OBJECTIVES
To recognize, palpate, and/or locate important structures of the musculoskeletal, peripheral nervous, and vascular systems. To relate the use of palpation with diagnostic and therapeutic approaches.

CONTENT

- General aspects of the skeletal system, joint classification, and striated skeletal muscle.
- Palpation: principles and practice.
- Palpation of specific anatomical structures of the upper limb: Shoulder Girdle.
- Shoulder and arm.
- Forearm.
- Wrist and hand.
- Palpation of specific anatomical structures of the lower limb: Pelvic Girdle.
- Hip joint and thigh.
- Knee joint.
- Leg.
- Ankle joint.
- Foot region.
- Palpation of specific anatomical structures of the Lumbar Spine and Sacroiliac Joint.
- Palpation of specific anatomical structures of the Thoracic Spine.
- Palpation of specific anatomical structures of the Cervical Spine.

BASIC BIBLIOGRAPHY

Cael, Christy. **Anatomia palpatória e funcional**. São Paulo: Manole, 2013.
Tixa, Serge. **Atlas de anatomia palpatória**, v.2 Lower Limb. 3rd ed. São Paulo: Manole, 2009.
Tixa, S. **Atlas de anatomia palpatória**, v.1 Neck, Trunk, Upper Limb. 2nd ed. São Paulo: Manole, 2009.

SUPPLEMENTARY BIBLIOGRAPHY

McMinn, R. M. H. et al. **Atlas colorido de anatomia humana**. 8th ed. São Paulo, SP: Manole, 2021.
Sobotta: **Atlas de anatomia**. 23rd ed. Rio de Janeiro, RJ: Guanabara Koogan, 2019.
Junqueira, L. **Anatomia palpatória e seus aspectos clínicos**. Rio de Janeiro: Guanabara Koogan, 2010.

Course: PHILOSOPHICAL ANTHROPOLOGY
Workload: 40 h/classes

SYLLABUS

This course aims to introduce students to the fundamental concepts of Philosophy and Anthropology, exploring their origins, historical developments, and contemporary applications. The course seeks to foster a critical understanding of human nature, culture, and the philosophical questions that permeate our existence.

OBJECTIVES

- Promote a solid understanding of the fundamental concepts of Philosophy and Anthropology.
- Develop critical thinking and analytical skills, enabling students to reflectively evaluate philosophical and anthropological issues.
- Facilitate the appreciation of the connections between Philosophy and Anthropology, highlighting how these disciplines relate and complement each other.
- Foster students' ability to apply philosophical and anthropological concepts to the understanding of contemporary ethical, social, and cultural issues.

CONTENT

Introduction to Philosophy

- Definition and objectives of Philosophy
- Main philosophical schools of thought
- Philosophy of mind and knowledge
- Ethics and political philosophy
- Philosophy of religion

Introduction to Anthropology

- Definition and objectives of Anthropology
- Approaches in Anthropology (cultural, biological, linguistic, and archaeological)
- Human evolution and paleoanthropology
- Culture and society
- Ethnography and anthropological research

Philosophy and Anthropology: Meeting Points

- Human nature: philosophical and anthropological debates
- Culture, identity, and cultural diversity
- Ethics, morality, and cultural values
- Globalization and cultural changes
- Contemporary ethical challenges

BASIC BIBLIOGRAPHY

Cazarotto, José Luiz. Psicologia e Antropologia. São Paulo: Ideias & Letras, 2015.
Aranha, M. L. A.; Martins, Pires M. H. Filosofando: introdução à filosofia. 3rd ed. São Paulo, SP: Moderna, 2007.
Mercier, Paul. História da Antropologia. 2nd ed. São Paulo: Centauro, 2012.

SUPPLEMENTARY BIBLIOGRAPHY

Laplantine, François. Aprender antropologia. São Paulo: Brasiliense, 2009.
Louro, G. L. Gênero, sexualidade e educação: uma perspectiva pós-estruturalista. 16th ed. São Paulo: Vozes, 2014.
Nardi, Henrique Caetano; Machado, Paula Sandrine; Silveira, Raquel da Silva. Diversidade Sexual, Relações de Gênero e Políticas Públicas. São Paulo: Sulina, 2013.

Course: APPLIED KINETIC-FUNCTIONAL ASSESSMENT
Workload: 80 h/classes

SYLLABUS

Study of methods and techniques of assessment in Physiotherapy, covering basic concepts and initial evaluation with emphasis on functional assessment applied in outpatient, home care, and hospital settings.

OBJECTIVES

- Develop the skills and competencies required for physiotherapeutic assessment in different contexts (hospital, outpatient, and home care).
- Promote clinical reasoning in physiotherapy applied to functional diagnosis.
- Develop and practice clinical and functional assessment procedures.
- Discuss morphological, structural, kinesiological, and physiological foundations related to functional assessment.
- Reflect on the ethical and scientific aspects of assessment tools and scales in Physiotherapy.

CONTENTS

- Introduction to Global Assessment.
- Physiotherapeutic assessment in orthopedics, neurology, and cardiorespiratory conditions.
- Principles of examination techniques.
- Inspection and palpation of upper limbs (UL).
- Goniometry of UL.
- Special tests of UL.
- Manual muscle testing of UL.
- Goniometry of lower limbs (LL).
- Special tests of LL.
- Manual muscle testing of LL.
- Spinal assessment.
- Postural assessment.
- Neurological assessment in adults and children (DMN and specific tests).
- Specific tests in pediatric neurology.
- Respiratory system assessment: inspection and palpation.
- Pulmonary auscultation: normal and pathological sounds.
- Assessment of respiratory muscles.
- Physiotherapy assessment protocols.

BASIC BIBLIOGRAPHY

QUEIROGA, M. R. **Tests and measurements for assessing health-related physical fitness in adults**. Rio de Janeiro: Guanabara Koogan, 2005.

KENDALL, F. P.; MCCREADY, E. K. **Muscles: Testing and Function**. 5th ed. São Paulo: Manole, 2007.

HOPPENFELD, S. **Physical Examination of the Spine and Extremities**. São Paulo: Atheneu, 2008.

SUPPLEMENTARY BIBLIOGRAPHY

MAGEE, D. J. **Orthopedic Physical Assessment**. 4th ed. São Paulo: Manole, 2004.

SHUMWAY-COOK, A.; WOOLLACOTT, M. **Motor Control: Theory and Practical Applications**. 3rd ed. Barueri, SP: Manole, 2010.

BICKLEY, L. S.; SZILAGYI, P. G. **Bates' Guide to Physical Examination and History Taking**. 11th ed. Rio de Janeiro: Guanabara Koogan, 2015.

Course: GENERAL KINETIC-FUNCTIONAL ASSESSMENT
Workload: 60 h/classes

SYLLABUS

This course covers the theoretical and practical knowledge of global clinical assessment methods and techniques in various fields of Physiotherapy through analysis, understanding, theoretical foundations, and training of procedures and maneuvers used for diagnostic purposes in hospital, outpatient, and home care settings. It provides a theoretical-practical approach to assessment procedures and measurement scales.

OBJECTIVES

- Develop the skills and competencies required for physiotherapeutic assessment in hospital, outpatient, and home care settings.
- Promote clinical reasoning in Physiotherapy related to functional diagnosis.
- Develop and practice assessment procedures.
- Discuss the morphological, structural, kinesiological, and physiological bases involved in functional and clinical assessment.
- Reflect on the ethical and scientific aspects of assessment tools and scales.

CONTENTS

- Introduction to General Concepts of Assessment.
- Physiotherapeutic Assessment Form: Identification and Patient History.
- Pain Assessment.
- Edema Assessment.
- Superficial Sensitivity Assessment.
- Muscle Trophism Assessment.
- Anthropometric Measurements.
- Vital Signs.
- Respiratory Assessment.
- Neurological Assessment: Deep tendon reflexes, Muscle tone, and Deep sensitivity.
- Physiological Gait Assessment.
- Assessment Scales.
- Individual and Group Theoretical Activities.
- Neurological Scales.
- Orthopedic Scales.
- Specific Scales for Respiratory Diseases.

BASIC BIBLIOGRAPHY

QUEIROGA, M. R. **Tests and measurements for assessing health-related physical fitness in adults**. Rio de Janeiro: Guanabara Koogan, 2005.

KENDALL, F. P.; MCCREADY, E. K. **Muscles: Testing and Function**. 5th ed. São Paulo: Manole, 2007.

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SHUMWAY-COOK, A.; WOOLLACOTT, M. **Motor Control: Theory and Practical Applications**. 3rd ed. Barueri, SP: Manole, 2010.

BICKLEY, L. S.; SZILAGYI, P. G. **Bates' Guide to Physical Examination and History Taking**. 13th ed. Rio de Janeiro: Guanabara Koogan, 2022.

Course: BIOPHYSICS
Workload: 40 h/classes

SYLLABUS

Covers the concepts of classical physics applied to the functioning of different organic systems of living beings. Focuses on the study of solutions, biological fluids, and their relationship with body systems. Includes the study of different forms of radiation and their applications in the field of Physiotherapy.

OBJECTIVES

- Promote the understanding of the basic laws governing physical phenomena that occur in biological systems, using the human body as the main example.
- Stimulate students' curiosity about the physical phenomena underlying biological systems.
- Provide fundamental concepts of biophysics for the understanding of biological phenomena at the macroscopic, cellular, and molecular levels, relating physical laws to biology.
- Establish the relationship between the science of biophysics and the development of research and technology, based on observation and experimentation of phenomena.

CONTENTS

- History of Biophysics.
- Bioinformatics as a tool in Biophysics.
- Fundamental and derived quantities.
- Biophysics of circulation.
- Biophysics of respiration.
- Biophysics of solutions.
- Molecular and ionic solutions.
- Osmosis, osmotic pressure, and tonicity.
- Biophysics of excretion.
- Surface tension of water and surfactants.
- Colloidal solutions.
- Ionizing and non-ionizing radiation.

BASIC BIBLIOGRAPHY

HENEINE, I. F. **Basic Biophysics**. 2nd ed. São Paulo: Atheneu, 2010.

GARCIA, E. A. C. **Biophysics**. São Paulo: Savier, 2015.

MOURÃO JÚNIOR, C. A. **Essential Biophysics**. Rio de Janeiro: Guanabara Koogan, 2015.

SUPPLEMENTARY BIBLIOGRAPHY

DURAN, J. E. R. **Biophysics: Fundamentals and Applications**. Pearson, 2006.

OKUNO, E.; CALDAS, I. L.; CHOW, C. **Physics for Biological and Biomedical Sciences**. São Paulo: Harper & Row, 1986.

HALL, J. E. **Fundamentals of Physiology**. 13th ed. Rio de Janeiro: Guanabara Koogan, 2017.

Course: BIOCHEMISTRY
Workload: 40 h/classes

SYLLABUS

Basic concepts of chemistry and cellular chemical composition: water, mineral salts, and organic macromolecules (carbohydrates, lipids, proteins, and nucleic acids). Enzymes and vitamins. Integration between different metabolisms. Examples of biochemical studies in pathological processes.

OBJECTIVES

- Understand the basic mechanisms of the functioning of organic biochemical systems.
- Encourage the study of scientific publications and research in the field of Biochemistry, providing foundations for professional practice.
- Associate structure with the biochemical functioning of the human body, as well as understand physiological and pathological chemical processes relevant to clinical investigation.

CONTENTS

- Introduction to biological chemistry.
- Basic concepts: atoms and molecules; chemical reactions.
- pH, buffer systems, and clinical applicability.
- Biochemical properties of water (biological importance).
- Carbohydrates: chemical structure, classification, and nomenclature; biological importance and lactose intolerance; energy derived from carbohydrates.
- Introduction to carbohydrate metabolism and contextual activities.
- Glycolysis, Krebs cycle, and respiratory chain.
- Pathological problematization and metabolic alterations related to energy pathways.
- Proteins: chemical structure, biological importance, classification, and nomenclature; use of proteins in clinical diagnosis; protein metabolism by-products, renal and hepatic function.
- Nucleic acids: chemical structure, protein synthesis, biological importance, general properties; use of enzymes in clinical diagnosis.
- Lipids: chemical structure, biological importance, classification, and nomenclature; blood transport.
- Lipid metabolism and its by-products.
- Biosynthesis (lipogenesis); lipolysis and hormonal regulation; fatty acid oxidation and ketogenesis in cellular and hepatic metabolism.
- Conversion of metabolic substrates: fed state and fasting.
- Application of biochemical events in major metabolic conditions, both normal and pathological.

BASIC BIBLIOGRAPHY

CAMPBELL, M. K.; FARRELL, S. O. **Biochemistry**. 2nd ed. São Paulo: Cengage Learning, 2016.

FERREIRA, C. P. (Coord.). **Basic Biochemistry**. 8th rev. and expanded ed. São Paulo: MNP, 2008.

MARZZOCO, A.; TORRES, B. B. **Basic Biochemistry**. 4th ed. Rio de Janeiro: Guanabara Koogan, 2015.

SUPPLEMENTARY BIBLIOGRAPHY

DE ROBERTS, E. **Fundamentals of Cell and Molecular Biology**. 4th ed. Rio de Janeiro: Guanabara Koogan, 2006.

GAW, A. et al. **Clinical Biochemistry: An Illustrated and Color Textbook**. 5th ed. Rio de Janeiro: Elsevier, 2015.

NELSON, D. L.; COX, M. M. **Lehninger Principles of Biochemistry**. 4th ed. São Paulo: Sarvier, 2007.

Course: KINESIOLOGY
Workload: 80 h/classes

SYLLABUS

Concepts of internal and external forces of the human body regarding the integration of the skeletal, articular, and muscular systems involved in joint movements and posture maintenance, including lever systems. This integration is analyzed through muscle function tests, observation of movements, as well as analysis of functional and pathological gait.

OBJECTIVES

To understand the dynamic behavior of the anatomical structures of the human locomotor system, as well as the basic principles of clinical intervention with therapeutic purposes. To identify which structures, and how, produce each body movement and posture. To understand and apply the principles to promote maintenance and recovery of normal body function.

CONTENT

- Introduction to clinical kinesiology
- Historical aspects related to clinical kinesiology
- Joint movements and muscle contraction
- Biomechanics laws and lever concepts
- Articular physiology of the shoulder girdle
- Articular physiology of the elbow joint
- Articular physiology of the wrist and hand
- Articular physiology of the pelvic girdle
- Articular physiology of the knee joint
- Articular physiology of the femoropatellar joint
- Articular physiology of the ankle and foot
- Articular physiology of the vertebral column (lumbar and sacroiliac joint)
- Articular physiology of the thoracic spine
- Articular physiology of the cervical spine
- Principles of human body posture
- Analysis of normal gait
- Kinesiological analysis of upper and lower limbs

BASIC BIBLIOGRAPHY

HALL, Susan J. **Basic Biomechanics**. 8th ed. Rio de Janeiro: Guanabara Koogan, 2020.
NEUMANN, Donald A. **Kinesiology of the Musculoskeletal System: Foundations for Rehabilitation**. Rio de Janeiro: GEN Guanabara Koogan, 2018.
LIPPERT, Lynn S. **Clinical Kinesiology and Anatomy**. 6th ed. Rio de Janeiro: Guanabara Koogan, 2018.

SUPPLEMENTARY BIBLIOGRAPHY

KENDALL, Florence Peterson; MCCREARY, Elizabeth Kendall; PROVANCE, Patricia Geise. **Muscles: Testing and Function with Posture and Pain**. 5th ed. São Paulo: Manole, 2007.
HOUGLUM, Peggy A.; BERTOTI, Dolores B. Brunnstrom's **Clinical Kinesiology**. 6th ed. São Paulo: Manole, 2014.
FLOYD, R. T. **Manual of Structural Kinesiology**. 19th ed. Barueri: Manole, 2016.

Course: APPLIED KINESIOTHERAPY
Workload: 60 h/classes

SYLLABUS

The Applied Kinesiotherapy course contributes to the professional training of the student by providing theoretical and practical learning of movement therapy, correlated with anatomical, biological, and other relevant knowledge. It supports the planning and execution of essential physiotherapeutic interventions, guiding students to seek kinetic-functional re-education in both curative and preventive-promotional aspects, with an emphasis on specialized techniques for each case.

OBJECTIVES

Apply specific therapy techniques, developing the ability to prescribe and treat individuals at all levels of healthcare. Recognize differences among patients and their conditions, encouraging students to select and adapt kinesiotherapeutic techniques according to each case.

CONTENT

- Exercises for upper limb rehabilitation (Codmann Pendular / Neer Series / Scapular Diagonals)
- Exercises for upper limb rehabilitation (muscle reconditioning and motor re-education, joint mobilization)
- Exercises for lower limb rehabilitation (muscle reconditioning and motor re-education)
- Joint mobilization techniques for the lower limb
- Exercises for trunk rehabilitation (Williams Series)
- Exercises for trunk rehabilitation (Klapp Series)
- Pilates Method (MAT) and Pilates Studio Method
- Therapeutic facilitation exercises
- Patient transfers
- Therapeutic ball (Swiss ball)
- Proprioceptive Neuromuscular Facilitation (upper and lower limbs)

BASIC BIBLIOGRAPHY

LIANZA, Sergio (Coordinator-Editor). **Rehabilitation Medicine**. Rio de Janeiro, RJ: Guanabara Koogan, 2011.
O'SULLIVAN, Suzan B.; SCHMITZ, Thomas J. **Physical Therapy: Evaluation and Treatment**. 5th ed. Barueri: Manole, 2010.
BRITTO, Raquel Rodrigues; BRANT, Tereza Cristina Silva; PARREIRA, Verônica Franco. **Manual and Instrumental Resources in Respiratory Physiotherapy**. 2nd ed. Barueri: Manole, 2014.

SUPPLEMENTARY BIBLIOGRAPHY

KISNER, Carolyn; COLBY, Lynn Allen. **Therapeutic Exercise: Foundations and Techniques**. 5th ed. Barueri: Manole, 2009.
STARKEY, Chad. **Therapeutic Resources in Physiotherapy**. 2nd ed. São Paulo, SP: Manole, 2001.
WOOD, S. **Pilates in Rehabilitation: Guide for Injury Recovery and Function Optimization**. Barueri: Manole, 2022.

Course: GENERAL KINESIOTHERAPY
Workload: 80 h/classes

SYLLABUS

This course contributes to the professional training of students by providing theoretical and practical learning of movement therapy, correlated with anatomical, biological, and kinesiological knowledge in the development of exercises with and without equipment for various body segments. All activities have a therapeutic purpose, and in the laboratory, students experiment with and create exercises to optimize therapeutic practice. The course supports planning and execution of essential physiotherapeutic interventions, guiding students toward kinetic-functional re-education in both curative and preventive-promotional aspects.

OBJECTIVES

Clarify and develop knowledge of Kinesiotherapy and its technical skills, enabling students to identify, create, and apply therapeutic exercises under clinical guidance. The course aims to intervene in preventive and care contexts, promoting improved function and quality of life.

CONTENT

- History of kinesiotherapy
- Descriptive terminology
- Anatomical position and specific terms
- Planes and axes of movement
- Types of movements (pure movements, combined movements, special movements)
- Types of exercises (passive exercises, self-passive, active free exercise, assisted active exercise, resisted active exercise)
- Strengthening (muscle fiber types, manual and mechanical forces)
- Types of muscle contraction
- Open and closed kinetic chains
- Oxford technique, plyometric training
- Stretching
- Neurophysiological properties of contractile tissue
- Mechanical properties of contractile and non-contractile tissues

- Types of stretching
- Techniques for stretching muscle groups and individual muscles
- Active inhibition techniques

BASIC BIBLIOGRAPHY

UMPHRED, Darcy. **Neurological Rehabilitation**. 4th ed. São Paulo, SP: Manole, 2004.
BRITTO, Raquel Rodrigues; BRANT, Tereza Cristina Silva; PARREIRA, Verônica Franco. **Manual and Instrumental Resources in Respiratory Physiotherapy**. 2nd ed., rev. and expanded. Barueri, SP: Manole, 2014.
KISNER, Carolyn; COLBY, Lynn Allen. **Therapeutic Exercise: Foundations and Techniques**. 5th ed. Barueri: Manole, 2009.

SUPPLEMENTARY BIBLIOGRAPHY

BRODY, L. T.; HALL, C. M. **Therapeutic Exercise**. 4th ed. Rio de Janeiro: Guanabara Koogan, 2019.
LIANZA, S. **Rehabilitation Medicine**. São Paulo: EGK Publishing Group, 2007.
HALL, S. J. **Basic Biomechanics**. 8th ed. Rio de Janeiro: Guanabara Koogan, 2020.

Course: CYTOLOGY, HISTOLOGY E EMBRYOLOGY
Workload: 60 h/classes

SYLLABUS

The cell as the basic unit of biological processes in living organisms. Structure and functions of cells: types of cells and properties. Structural and functional organization of cells: membranes, organelles, cell nucleus, and genetic material. Cell division. Histological study of human tissues: structure, functions, and classification. Tissues: epithelial, connective, bone, cartilage, muscular, nervous, blood, and adipose tissue. Basic embryology: gametogenesis, fertilization, cleavage, organ and tissue components, and gestational development.

OBJECTIVES

- Understand the basic mechanisms of organic system functioning.
- Encourage knowledge of scientific publications and research in Cytology and Histology, providing foundations for professional practice.
- Associate structure with the functioning of the human body, as well as understand normal physiological processes in initiating clinical investigation.
- General competencies: health attention, decision-making, communication, and continuous education.

CONTENT

- Cell structure
- Epithelial tissue: functions and classification
- Connective tissue: characteristics, functions, and classification
- Blood, hematopoiesis, and bone marrow: blood composition, hematopoiesis
- Cartilage and bone tissues: characteristics, functions, and classification
- Muscular tissue: characteristics, functions, classification, types of muscle tissue, and tissue regeneration
- Nervous tissue: characteristics, functions, classification, meninges

BASIC BIBLIOGRAPHY

JUNQUEIRA, Luiz C.; CARNEIRO, José. **Basic Histology**. 13th ed. Rio de Janeiro, RJ: Guanabara Koogan, 2017.
ALMEIDA, Lara Mendes de; PIRES, Carlos. **Cell Biology: Structure and Molecular Organization**. São Paulo, SP: Érica, 2014.
ROBERTIS, E.; HIB, J. **Foundations of Cell and Molecular Biology**. 4th ed. Rio de Janeiro: Guanabara Koogan, 2006.

SUPPLEMENTARY BIBLIOGRAPHY

MOORE, K.L.; PERSAND, T.V.N. **Basic Embryology**. 8th ed. Rio de Janeiro: Guanabara Koogan, 2013.
KIERSZENBAUM, A. L.; TRES, L. L. **Histology and Cell Biology: An Introduction to Pathology**. Rio de Janeiro: GEN Guanabara Koogan, 2021.
GODOY, Alessandra Eifler Guerra; LITVIN, Isnard Elman (Eds.). **Histology Notebook**. Caxias do Sul, RS: Educs, 2014.

Course: ELECTIVES I and II
Course: IMAGING TECHNIQUES
Workload: 40 h/classes

SYLLABUS

The Imaging Techniques course in Physiotherapy aims to provide students with a deep understanding of the principles and applications of medical imaging in the context of physiotherapy. The course covers four imaging modalities: X-ray, computed tomography (CT), magnetic resonance imaging (MRI), and ultrasonography, with a focus on the musculoskeletal, neurological, and cardiopulmonary areas.

OBJECTIVES

- Understand the basic principles of X-ray, CT, MRI, and ultrasonography.
- Apply imaging knowledge for assessment and diagnosis of musculoskeletal, neurological, and cardiopulmonary patients.
- Develop practical skills in interpreting radiographs and images obtained by MRI, CT, and ultrasonography.
- Integrate imaging as a complementary tool in physiotherapy practice in different clinical contexts.

CONTENT

- Basic concepts in imaging.
- Principles of image formation in X-ray, CT, MRI, and ultrasonography.
- Ethics and safety in imaging exams.
- Conventional radiographic techniques.
- Interpretation of musculoskeletal radiographs.
- Clinical cases and practice.
- Principles of CT.
- Applications in neurology and cardiopulmonary systems.
- Clinical cases and practice.
- Principles of MRI.

- Applications in neurology and musculoskeletal system.
- Clinical cases and practice.
- Principles of ultrasonography.
- Applications in muscles, joints, nervous system, and cardiovascular system.

BASIC BIBLIOGRAPHY

GREENSPAN, Adam; BELTRAN, Javier. **Orthopedic Radiology: A Practical Approach**. 6th ed. Rio de Janeiro: Guanabara Koogan, 2017. Online resource.
ZATTAR, Luciana; VIANA, Públio Cesar Cavalcante; CERRI, Giovanni Guido (eds.). **Practical Diagnostic Radiology**. 2nd ed. Barueri: Manole, 2022. Online resource.
WESTBROOK, Catherine; TALBOT, John. **Magnetic Resonance Imaging: Practical Applications**. 5th ed. Rio de Janeiro: Guanabara Koogan, 2021. Online resource.

SUPPLEMENTARY BIBLIOGRAPHY

STIMAC, Gary K. **Introduction to Diagnostic Imaging**. Rio de Janeiro, RJ: Guanabara Koogan, 1994.
ROCHITTE, Carlos Eduardo; NOMURA, César Higa (eds.). **CT and MRI in Cardiology**. Barueri: Manole, 2020. Online resource. (InCor Cardiology Series)
ROTH, Christopher G.; DESHMUKH, Sandeep. **Fundamentals of MRI**. Rio de Janeiro: GEN Guanabara Koogan, 2018. Online resource.

Course: FORENSIC PHYSIOTHERAPY
Workload: 40 h/classes

SYLLABUS

Introduction to Forensic Physiotherapy, the physiotherapist's role as an expert witness and legal assistant, analysis of clinical and legal cases, preparation of reports and technical opinions, and the impact of impaired function on labor issues, retirement, and compensation.

OBJECTIVES

- Understand the basic principles of Forensic Physiotherapy and its role in resolving legal issues.
- Develop skills to act as an expert witness or legal assistant in cases involving impaired function.
- Analyze complex clinical cases from a legal perspective, considering labor implications, retirement, and compensation.
- Prepare evidence-based reports and technical opinions.
- Understand the legal framework governing the physiotherapist's role in the forensic area.

CONTENT

- Definition and history of Forensic Physiotherapy
- Role of the physiotherapist as expert witness and legal assistant
- Professional ethics in Forensic Physiotherapy
- Brazilian legislation related to Forensic Physiotherapy
- Civil and criminal liability of the physiotherapist
- Technical standards and regulations
- Physical and functional assessment in forensic cases

- Preparation of reports and technical opinions
- Practical cases and case studies
- Relationship between impaired function and return to work
- Job adaptation and rehabilitation
- Disability retirement and indemnity claims
- Practical training in preparing reports and technical opinions
- Simulation of testimonies in a forensic environment

BASIC REFERENCES

MIZIARA, Ivan Dieb. **Guide to Legal Medicine and Medical Expertise**. Barueri: Manole, 2022. Online resource.
BISCAIA, Leonardo; PAULA, Maria Carolina Schatz de. **Medical Expertise: Quick Reference**. Rio de Janeiro: Guanabara Koogan, 2017. Online resource.
SOUZA, Naylla Morais de et al. **Physiotherapy: Worker Health**. Porto Alegre: SAGAH, 2021. Online resource.

SUPPLEMENTARY REFERENCES

OPITZ JÚNIOR, João Baptista. **Occupational Medicine and Medical Expertise: Civil, Criminal, Labor, and Social Security Perspectives**. 2nd ed. São Paulo, SP: Santos, 2012. 345 p.
FRANÇA, Genival Veloso de. **Medical Law**. 17th ed. Rio de Janeiro: Forense, 2020. Online resource.
SERAFIM, Antonio de Pádua; SAFFI, Fabiana. **Psychology and Forensic Practices**. 3rd ed. Barueri: Manole, 2019. Online resource.

Course: PSYCHOMOTOR SKILLS
Workload: 40 h/classes

SYLLABUS

The Psychomotor Skills course in Physiotherapy aims to provide students with a comprehensive understanding of the theoretical and practical principles of psychomotricity, as well as its application in physiotherapy. Topics include motor development, the relationship between body and mind, the importance of motor coordination, and physiotherapeutic interventions for health promotion and well-being.

OBJECTIVES
By the end of the course, students should be able to:

- Understand the theoretical foundations of psychomotricity.
- Analyze the relationship between psychomotricity and motor development.
- Apply psychomotricity concepts in physiotherapeutic assessment and intervention contexts.
- Recognize the importance of psychomotricity in promoting patients' quality of life.

CONTENT

- Introduction to psychomotricity
- Child motor development
- Psychomotor theories

- Psychomotor assessment methods
- Interpretation of results
- Development of psychomotor diagnoses
- Psychomotor stimulation techniques
- Physiotherapeutic interventions based on psychomotricity
- Work with groups and individuals
- Psychomotricity and disease prevention
- Psychomotricity in rehabilitation
- Promotion of psychomotor well-being

BASIC REFERENCES

OLIVEIRA, Gislene de Campos. P**sychomotricity: Education and Re-education in a Psychopedagogical Approach**. Petrópolis: Vozes, 2016. 150 p.
HAYWOOD, Kathleen M.; GETCHELL, Nancy. **Lifespan Motor Development**. 6th ed. Porto Alegre: ArtMed, 2016. Online resource.
COSTA, Rochelle Rocha et al. **Learning and Motor Control**. Porto Alegre: SAGAH, 2019. Online resource.

SUPPLEMENTARY REFERENCES

BUENO, Jocian Machado. **Psychomotricity: Theory and Practice – From School to Aquatic Activities**. São Paulo: Cortez, 2013. 536 p.
TUDELLA, Eloisa; FORMIGA, Cibelle (eds.). **Neuropediatric Physiotherapy: A Biopsychosocial Approach**. Barueri: Manole, 2021. Online resource.
LASSUS, Elizabeth de. **Psychomotricity: Return to Origins**. Rio de Janeiro: Panamed, 1984. [no pagination]

Course: ORIENTAL TECHNIQUES IN PHYSIOTHERAPY
Workload: 40 h/classes

SYLLABUS

This course introduces physiotherapy students to oriental treatment techniques, focusing on acupuncture, Do-In, Shiatsu, and other traditional approaches. Students will learn the underlying principles of these techniques and practice them to develop basic clinical skills.

OBJECTIVES

- Understand the fundamental principles of oriental techniques, including acupuncture, Do-In, and Shiatsu.
- Develop basic practical skills in applying acupuncture needles, Do-In exercises, and Shiatsu techniques.
- Integrate knowledge of oriental techniques into conventional physiotherapy practice.
- Promote awareness of ethical and legal aspects of applying oriental techniques in physiotherapy.
- Analyze case studies and clinical situations to evaluate the effectiveness of oriental techniques as a complement to physiotherapy.

CONTENT

- History and fundamentals of oriental techniques
- Comparison of oriental techniques with Western physiotherapy
- Principles of Traditional Chinese Medicine
- Basic concepts of acupuncture
- Acupuncture points and their functions
- Needle insertion techniques
- Practical application of needles on specific points
- Principles of Do-In
- Self-massage and stretching techniques
- Practice of Do-In exercises
- Fundamentals of Shiatsu
- Pressure and manipulation techniques
- Practice of Shiatsu sessions
- Overview of other techniques such as Qi Gong and Tai Chi Chuan

BASIC REFERENCES

BITTAR, João Paulo; MORÉ, Ari Ojeda Ocampo (Eds.). **Clinical Acupuncture Manual**. São Paulo: Atheneu, 2015. 306 p.
HECKER, Hans-Ulrich et al. **Color Atlas of Acupuncture: Systemic Points – Auricular Points – Trigger Points**. 2nd ed. Rio de Janeiro: Guanabara Koogan, 2010. 330 p.
DONATELLI, Sidney. **The Language of Touch: Oriental and Western Massage Therapy**. Rio de Janeiro: Roca, 2015. Online resource.

SUPPLEMENTARY REFERENCES

FOCKS, Claudia; MARZ, Ulrich. **Practical Guide to Acupuncture**. Barueri: Manole, 2008. 697 p.
MARTINS, Ednea Iara Souza; LEONELLI, Luiz Bernardo. **Shiatsu Practice: Traditional Chinese Perspective**. 2nd ed. Rio de Janeiro: Roca, 2014. Online resource.
RAPPENECKER, Wilfried; KOCKRICK, Meike. **Shiatsu Atlas: Zen-Shiatsu Meridians**. Barueri: Manole, 2008. Online resource.

Course: ELECTROTHERMOPHOTOTHERAPY
Workload: 100 h/classes

SYLLABUS

This course aims to introduce, provide a foundation for, and develop knowledge covering the biophysical, biochemical, and physiological principles of electrical, thermal, and phototherapeutic agents through theoretical and practical development. It discusses the physiological effects produced by these modalities and their application in treating morphofunctional alterations, establishing critical reasoning regarding the prescription of these resources as therapeutic agents: parameterization and differences in low-, medium-, and high-frequency currents.

OBJECTIVES

Provide students with theoretical and practical knowledge of physiotherapeutic resources that can be used as treatment options for patients, preparing them for professional practice. Develop essential attitudes for professional exercise and basic knowledge for the prescription and application of thermal, photo-, and electrotherapeutic resources.

CONTENTS

- Introduction and history of Electrotherapy; Low- and Medium-Frequency Electrotherapy.
- Physical characteristics of therapeutic currents.
- Galvanotherapy and Iontophoresis (concepts, indications, and contraindications).
- Polarized Currents: Diadynamic and Ultra-excitatory.
- Electrodiagnosis of I/T curves.
- Interpretation of electrodiagnostic results and clinical interactions.
- Physiological principles of pain; Transcutaneous Electrical Nerve Stimulation (TENS).
- Functional Electrical Stimulation (FES/NMES) using low- and medium-frequency currents; Russian Current; Interferential Currents.
- Basic concepts of Thermotherapy and Biophysical principles.
- Thermoregulation / Modes of heat transfer / Physical and physiological changes caused by heat application.
- Thermotherapy: Superficial Heat.
- Thermotherapy: Deep Heat.
- Ultrasound Therapy: Physical bases of therapeutic ultrasound acquisition.
- Ultrasound Therapy: Dosimetry, clinical application techniques, indications, and contraindications.
- Photobiomodulation: Physical principles and clinical applications.
- Cryotherapy: Physiological principles and application techniques.

BASIC REFERENCES

LIEBANO, Richard Eloin. **Electrotherapy applied to rehabilitation: from fundamentals to evidence**. Rio de Janeiro: Thieme Revinter, 2021.

LOW, John; REED, Ann. **Electrotherapy Explained: Principles and Practice**. 3rd ed. Barueri: Manole, [2001].

KITCHEN, Sheila (Ed.). **Electrotherapy: Evidence-Based Practice**. 11th ed. São Paulo: Manole, 2007.

SUPPLEMENTARY REFERENCES

AGNE, Jones Eduardo. **Electrothermophototherapy**. 2nd rev. and expanded ed. Santa Maria, RS: The author, 2013.

ROBINSON, Andrew J. **Clinical Electrophysiology: Electrotherapy and Electrophysiological Testing**. 2nd ed. Porto Alegre: Artmed, 2002.

NELSON R.M.; HAYES K.W.; CURRIER D.P. **Clinical Electrotherapy**. 3rd ed. São Paulo: Manole, 2003.

ROSA, Patrícia Viana da. **Basic Facial and Body Electrotherapy**. Porto Alegre: SER - SAGAH, 2018.

CISNEROS, Ligia de Loiola; SALGADO, Audrey Heloisa Ivanenko. **Electrotherapy Guide: Biophysical Principles, Concepts, and Clinical Applications**. Belo Horizonte: Médica, 2006.

Course: BIOSTATISTICS AND EPIDEMIOLOGY
Workload: 40 h/classes

SYLLABUS

Understanding epidemiology and descriptive statistics from their concepts, the health-disease process, health indicators, and epidemiological studies. Clinical epidemiology applied to physiotherapy, data classification, graphical representation, and sampling. Surveillance systems and the interrelationship between epidemiology and inferential statistics for the development of preventive actions and health promotion.

OBJECTIVES

Equip students with tools for epidemiological reasoning and the use of statistical data for analyzing problems, risks, and interventions in healthcare, understanding the relevance of epidemiology and statistics in health promotion actions, with specific attention to Physiotherapy.

CONTENTS

- Concepts of epidemiology and biostatistics (terms vs. concepts).
- Epidemiology terminologies.
- Types of epidemiological studies.
- Activity with scientific articles to characterize study types.
- Sampling.
- Descriptive statistics.
- Hypothesis testing and significance.
- Graphical representation of epidemiological data.
- Presentation of descriptive epidemiological studies.
- Health-disease process.
- Health promotion and prevention.
- Social determinants of health.
- Health indicators.
- Health transitions – demographic, epidemiological, and nutritional.
- Evidence-based practice.
- Epidemiology applied to physiotherapy / Public health problems.
- Epidemiological studies relevant to physiotherapists.

BASIC REFERENCES

FRANCO, L. J., PASSOS, A. D. C. **Fundamentals of Epidemiology**. 3rd ed. Barueri: Manole, 2022.

VIEIRA, S. **Introduction to Biostatistics**. 6th ed. Rio de Janeiro: GEN Guanabara Koogan, 2021.

PETRY, P. C. **Epidemiology: Disease Occurrence and Mortality Measures**. Rio de Janeiro: ThiemeRevinter, 2020.

SUPPLEMENTARY REFERENCES

RUMSEY, D. J. **Statistics For Dummies**. Rio de Janeiro: Alta Books, 2019.

SCHUMACHER, M.; GELLER, M. **Biostatistics Step by Step**. 2nd ed. Rio de Janeiro: ThiemeRevinter, 2019.

ROUQUAYROL, M. Z. (Ed.). **Epidemiology & Health**. 8th ed. Rio de Janeiro: MedBook, 2017.

Course: SUPERVISED INTERNSHIP IN PHYSIOTHERAPY I
Workload: 480 h/classes

SYLLABUS

Practical development in physiotherapeutic care across different life cycles, acting at all levels of healthcare, providing experiences with real therapeutic interventions in outpatient services, hospitals, and community care. Encompasses comprehensive care, addressing prevention, promotion, rehabilitation, and health education. Provides students with professional and social learning experiences in real-life and work situations.

OBJECTIVES

Enable students to perform in the field through practice of knowledge involved in assessment and diagnosis, education, and physiotherapeutic intervention, thereby offering a generalist view of physiotherapy across various fields, as a treatment method and part of the rehabilitation process.

CONTENTS

- Introduction to the internship area.
- General clarifications on student/intern conduct and posture (Intern Handbook).
- Clarifications on the schedule developed throughout the internship.
- Bibliographic references and evaluation criteria.
- Information on available materials and their use, maintenance, and organization.
- Patient assessment.
- Supervised patient care (individual, group, and home care).
- Seminars according to the internship field.
- Discussion of clinical cases/scientific articles.

BASIC REFERENCES

DUTTON, Mark. **Orthopedic Physiotherapy**. 2nd ed. Porto Alegre: ArtMed, 2010.

LEVY, J.A.; OLIVEIRA, A.S.B. **Rehabilitation in Neurological Diseases: A Practical Guide**. São Paulo: Atheneu, 2003.

WEST, JOHN B. **Respiratory Physiology**. 8th ed. Porto Alegre: Artmed, 2010.

SUPPLEMENTARY REFERENCES

CAMPOS, Gastão Wagner de Sousa et al. (Eds.). **Collective Health Treatise**. 2nd ed. São Paulo: Hucitec, 2015.

REBELLATO, J. R.; MORELLI, J.G.S. **Geriatric Physiotherapy: Care Practice for the Elderly**. Barueri: Manole, 2004.

VALIATTI, Jorge Luis dos Santos; AMARAL, José Luiz Gomes do; FALCÃO, Luiz Fernando dos Reis. **Mechanical Ventilation: Fundamentals and Clinical Practice**. 2nd ed. Rio de Janeiro: Roca, 2021.

Course: SUPERVISED INTERNSHIP IN PHYSICAL THERAPY II
Workload: 480 h/classes

SYLLABUS

Covers practical development in physical therapy care throughout different life cycles, working at all levels of healthcare, providing experiences in real therapeutic practices within outpatient, hospital, and community health services. Encompasses comprehensive care, addressing prevention, promotion, rehabilitation, and health education. Provides students with opportunities to carry out professional and social learning activities in real-life and work situations.

OBJECTIVES

Enable students to practice in the field through the application of specific knowledge related to evaluation and diagnosis, education, and physiotherapeutic intervention, thus offering a generalist view of physical therapy in its various fields of practice, both as a treatment option and as a role in the rehabilitation process.

CONTENTS

- Presentation of the internship field;
- General guidelines on student/intern behavior and conduct (internship manual);
- Clarifications regarding the schedule developed during the internship;
- Bibliographic references and evaluation criteria;
- Information about available materials and their use, conservation, and organization;
- Patient evaluation;
- Supervised patient care (individual, group, and home-based);
- Seminars according to the internship field;
- Discussion of clinical cases/scientific articles.

BASIC BIBLIOGRAPHY

DUTTON, Mark. **Orthopaedic Physical Therapy**. 2. Porto Alegre: ArtMed, 2010.
LEVY, J.A.; OLIVEIRA, A.S.B. **Rehabilitation in Neurological Diseases: A Practical Guide**. São Paulo: Atheneu, 2003.
WEST, John B. **Respiratory Physiology**. 8th ed. Porto Alegre: ArtMed, 2010.

SUPPLEMENTARY BIBLIOGRAPHY

CAMPOS, Gastão Wagner de Sousa et al. (Orgs.). **Treaty of Collective Health**. 2. ed. São Paulo, SP: Hucitec, 2015.
REBELLATO, J. R.; MORELLI, J.G.S. **Geriatric Physical Therapy: The Practice of Elderly Care**. Barueri: Manole, 2004.
VALIATTI, Jorge Luis dos Santos; AMARAL, José Luiz Gomes do; FALCÃO, Luiz Fernando dos Reis. **Mechanical Ventilation: Fundamentals and Clinical Practice**. 2. Rio de Janeiro: Roca, 2021.

Course: ETHICS AND DEONTOLOGY
Workload: 40 h/classes

SYLLABUS

Based on concepts of ethics, morality, conscience, values, virtues, vices, rights, and duties, the development of professional responsibility, adding to the subject the bioethical approach, which is indispensable today. Deontology of legislation related to the physical therapy profession in Brazil: concepts and objectives. Professional organizations: role, purpose, and functioning. Ethical aspects of professional practice.

OBJECTIVES

Present the milestones of ethics and deontology as determinants in the practice of physical therapy in Brazil and worldwide.
Provide elements for building the professional identity of Physical Therapy based on ethical and deontological principles.
Appropriate methodical knowledge regarding the legal support and professional representation of Physical Therapy, necessary for professional practice.

CONTENTS

- Welcome and presentation of students. Presentation of program content and evaluation methods.
- Philosophy and Ethics: historical aspects and main precursors.
- Ethics and Morality: historical and conceptual aspects. Object of study of Ethics.
- Ethical Theories: conceptual and practical aspects. Deontology and Teleology.
- Reflections on ethical conduct. Case study.
- Concepts and applications of Utilitarian Ethics (Responsibility) and Conviction.
- Ethics, morality, and Law: Ethical conflicts, Ethics, Freedom, and Citizenship.
- Philosophical aspects in the health field. Kant and deontology.
- Ethical sustainability in health relationships.
- Ethics and Deontology: historical and conceptual aspects, ethical dilemmas, and relevant factors in decision-making.
- Deontology: legislation, regulations, resolutions, and policies.
- Deontology: systemic, interdisciplinary, and multidimensional vision.
- Case studies related to conduct and dilemmas in professional activity.
- Professional ethical conduct.

BASIC BIBLIOGRAPHY

MEZZOMO, L. C. **Deontology and Legislation**. Porto Alegre: SER - SAGAH, 2019.
SANTOS, N. C. M. **Professional Legislation in Health: Concepts and Ethical Aspects**. São Paulo, SP: Saraiva, 2014.
SANTOS, G. A. (Org.). **Ethics, Research and Public Policies**. Rio de Janeiro, RJ: Rubio, 2010.

SUPPLEMENTARY BIBLIOGRAPHY

AMOS, D. L. P. (Org.). **Bioethics: Person and Life**. São Caetano do Sul: Difusão, 2009.
ARANHA, M. L. A.; MARTINS, Pires M. H. **Philosophizing: Introduction to Philosophy**. 3rd ed. São Paulo, SP: Moderna, 2007.

PESSINI, L.; BARCHIFONTAINE, C. P. **Current Problems in Bioethics**. 8th revised and expanded ed. São Paulo, SP: CUSC/Loyola, 2007.

Course: COMPLEMENTARY EXAMS
Workload: 40 h/classes

SYLLABUS

Study of the main laboratory tests to obtain the profile of different organs and systems. Along with laboratory diagnoses, imaging diagnostic tests are also studied, which complement and contribute to a more precise physiological and/or pathophysiological diagnosis.

OBJECTIVES

- Correlate laboratory and imaging tests with diagnostic hypotheses of various pathologies.
- Raise students' awareness of the need to analyze patients as integral beings and to understand that every professional must be involved with other modalities of medical sciences in order to develop a personalized therapeutic protocol that meets the real needs of patients.
- Prepare students to participate in a multidisciplinary team, where clinical condition analysis is not restricted only to the application of protocols.

CONTENTS

- Introduction to Complementary Exams: main blood tests (biochemical dosages, hormonal dosages, serological tests, microbiology, hematological, toxicological, cytogenetic diagnosis).
- Blood morphology: macroscopic visualization (color, viscosity, odor, temperature, pH, volume, and density) and microscopic visualization of blood (plasma and formed elements).
- Recognition of blood components and their basic functions.
- Electrolyte dosage: definition and examples; body electrolyte functions; Na+ dosage (hyponatremia, hypernatremia, and normal values); K+ dosage (hypokalemia, hyperkalemia, and normal values); Ca2+ dosage (hypocalcemia, hypercalcemia, and normal values); case study on electrolyte dosage.
- Clinical biochemistry: tests related to Diabetes mellitus investigation (capillary glucose or dextro, fasting glucose, glycated hemoglobin, glucose tolerance test, microalbuminuria); diabetic ketoacidosis.
- Case studies related to Diabetes mellitus investigation.
- Coagulogram: coagulation process; bleeding time (BT); clotting time (CT); activated partial thromboplastin time (aPTT); prothrombin time (PT).
- D-dimer; Imaging diagnosis of Pulmonary Embolism (PE) and Deep Vein Thrombosis (DVT).
- Renal profile: ammonia, urea, creatinine levels.
- Lipid profile: total cholesterol, LDL, HDL, triglycerides.
- Hepatic profile: total bilirubin, alkaline phosphatase, ALT, AST, gamma-glutamyl transferase. Case studies on renal, lipid, and hepatic profiles.
- Cardiac profile: total CK, CK-MB, LDH, myoglobin, troponin; Imaging diagnosis of cardiomegaly; Angiography. Imaging diagnosis of ischemic and hemorrhagic stroke.
- Interpretation of blood gas analysis: definition; differences between arterial and venous blood gas; blood gas analyzer; parameters evaluated.
- Acid-base balance, blood pH, cellular respiration and lactic acid, and lactate measurement.

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BRANT, William E. **Fundamentals of Radiology**. 4. Rio de Janeiro: Guanabara Koogan, 2015 (online resource).
NELSON, David L.; COX, Michael M. **Lehninger Principles of Biochemistry**. 6th ed. Porto Alegre: Artmed, 2017. 1298 p. ISBN 9788582710722.

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REISNER, Howard M. **Pathology: A Case-Based Approach**. Porto Alegre: AMGH, 2016 (online resource, Lange).
TOY, Eugene C. **Case Files: Internal Medicine**. 4. Porto Alegre: ArtMed, 2013 (online resource).
GUERRA, João Carlos de Campos; FERREIRA, Carlos Eduardo dos Santos; MANGUEIRA, Cristóvão Luis Pitangueira (Org.). **Clinic and Laboratory: Prof. Dr. Celso Carlos de Campos Guerra**. São Paulo, SP: Sarvier, 2011. 521 p.

Course: INTERDISCIPLINARY EXTENSION I
Workload: 20 h/classes

SYLLABUS

The interdisciplinary extension project seeks to foster the understanding of each individual's social responsibility within their social context. The student is seen as an agent of social transformation, capable of promoting positive changes in the community. Community experience is valued as an important learning factor for comprehensive training. Participation in community activity projects offers students the opportunity to apply their knowledge and skills for the collective well-being.

OBJECTIVES

The objectives are to promote students' social engagement, contribute to community development, strengthen the university-community relationship, provide services and training, stimulate interdisciplinarity, develop students' skills, raise awareness of social issues, promote inclusion and reduce inequalities, foster critical reflection, produce applied knowledge, and positively impact both the community and students' education.

CONTENT

- Introduction to Community Extension: Concepts, principles, and the importance of university extension in the community.
- Recognizing the Sustainable Development Goals (SDGs).
- Learning to use the DreamShaper tool.
- Needs Identification: Methods for identifying the needs and demands of the target community to guide the extension project.
- Project Development: Stages and key elements in extension project development, including objectives and activities.

- Ethics and Social Responsibility: Discussions on ethical aspects involved in the relationship between the university and the community, as well as the importance of social responsibility in project implementation.
- Community Mobilization and Engagement: Strategies to actively involve the community in the project, promoting participation and cooperation from local members.
- Participatory Methodologies: Exploration of participatory and inclusive methods that engage the community in decision-making and project activities.
- Monitoring and Evaluation: How to measure the project's impact on the community. DEVELOPMENT EVALUATION.
- Communication and Dissemination: Effective communication techniques to convey project information to the community, engage partners, and disseminate results achieved.
- Partnerships and Collaboration Networks: Exploring the potential for partnerships with organizations, institutions, and other key community actors to strengthen the project and expand its reach.
- Sustainability and Continuity: Strategies to ensure long-term project sustainability, including planning actions for continuity after course completion.
- Conflict Management: Identification and resolution of conflicts that may arise during project implementation, seeking dialogue and consensus as tools for resolution.
- Health Education: Theoretical and practical approach to health promotion and disease prevention through community educational actions.
- Culture and Diversity: Reflections on cultural diversity in the community, respect for differences, and appreciation of local cultural heritage.
- Project Management: Project management techniques and tools applied to extension project implementation and monitoring.
- Development of skills such as empathy, leadership, teamwork, and problem-solving, necessary for effective performance in community projects.
- Reflection and Self-Assessment: Spaces for individual and collective reflection on project experiences, aiming at continuous learning and improvement.
- Presentation of Results: Preparation and presentation of project results to the academic community and the target community, sharing achievements and lessons learned throughout the process.

BASIC BIBLIOGRAPHY

HENNINGTON, E. **Acolhimento como prática interdisciplinar num programa de extensão universitária**. Rio de Janeiro, 2004. Scielo database. Available at: Accessed on: Jun. 20, 2019.

JENIZE, E. **As Práticas Curriculares e a Extensão Universitária**. 2004. Available at: Accessed on: Jun. 20, 2019.

SILVA, O. da. **O que é extensão universitária. Integração: ensino, pesquisa e extensão**, São Paulo, v. 3, n. 9, p. 1489, May 1997.

SUPPLEMENTARY BIBLIOGRAPHY

NUNES, A. L. de P. F.; SILVA, M. B. da C. **A extensão universitária no ensino superior e a sociedade. Mal-Estar e Sociedade**, Year IV, n. 7, Barbacena, July/December 2011, p. 119-133.

GOHN, M. G. **Educação não formal, participação da sociedade civil e estruturas colegiadas nas escolas. Ensaio: Avaliação e Políticas Públicas em Educação**, v. 14, n. 50, 2006, p. 3; 27-38.

COLTRO, M. F. A.; LAAT, F. A.; SANTOS, G. R. **O projeto de extensão: Da escola à Universidade na cidade de Irati. Revista Mackenzie de Educação Física e Esporte**, v. 6, n. 2, 2007.

Course: INTERDISCIPLINARY EXTENSION II
Workload: 80 h/classes

SYLLABUS

The interdisciplinary extension project seeks to foster the understanding of each individual's social responsibility within their social context. The student is seen as an agent of social transformation, capable of promoting positive changes in the community. Community experience is valued as an important learning factor for comprehensive training. Participation in community activity projects offers students the opportunity to apply their knowledge and skills for the collective well-being.

OBJECTIVES

The objectives are to promote students' social engagement, contribute to community development, strengthen the university-community relationship, provide services and training, stimulate interdisciplinarity, develop students' skills, raise awareness of social issues, promote inclusion and reduce inequalities, foster critical reflection, produce applied knowledge, and positively impact both the community and students' education.

CONTENT

- Reviewing the objectives of Community Extension: Concepts, principles, and the importance of university extension in the community.
- Discussion to define the Sustainable Development Goals (SDGs) to be addressed in the project.
- Group division, selection of leaders, and definition of project themes.
- Needs Identification: identification of the needs and demands of the target community to guide the extension project.
- Project Development: Stages and key elements in extension project development.
- Completion of the DreamShaper platform; Schedule and required resources.
- Holding an event that incorporates the objectives of the projects. Visit from local high school students.
- Discussion to determine the theme and organization of the next event.
- Contact with the target audience for event dissemination.
- Schedule and required resources.
- Reading materials, discussions with advisors, preparation of resources.
- Reflection and Self-Assessment: Spaces for individual and collective reflection on project experiences, aiming at continuous learning and improvement.
- Presentation of Results: Preparation and presentation of project results to the academic community and the target community, sharing achievements and lessons learned throughout the process.

BASIC REFERENCES

VASCONCELOS, E. M. **Educação popular na formação universitária: reflexões com base em uma experiência**. São Paulo, HUCITEC, 2013.

INSTITUTO CIDADANIA BRASIL. ***Prêmio cidadania sem fronteiras: coletânea saberes de extensão: relatos de práticas de extensão universitária* / Instituto da Cidadania Brasil e Universidade Presbiteriana Mackenzie**. São Paulo/SP, 2007.

MAGALHÃES, M. F. **Estratégias para o desenvolvimento sustentável: ASG + P (ambiente, sociedade, governança, pessoas)**. São Paulo, Atlas 2023.

SUPPLEMENTARY REFERENCES

HADDAD, P. R. **Meio ambiente, planejamento e desenvolvimento sustentável**. São Paulo: Saraiva, 2015.

HIRAI, C. M. M. **A extensão universitária como oportunidade de integração e atualização curricular**. Available online: https://www.semesp.org.br/publicacoes/semesp-revista-ensino-superior-outubro-2021.

CORRÊA, E. J. **A extensão universitária e a área da saúde**. Olho Mágico, Londrina, vol. 9, n.1, p.26-28, Jan./Apr. 2002.

Course: INTERDISCIPLINARY EXTENSION III
Workload: 60 h/classes

SYLLABUS

The interdisciplinary extension project seeks to foster the understanding of each individual's social responsibility within their social context. The student is seen as an agent of social transformation, capable of promoting positive changes in the community. Community experience is valued as an important learning factor for comprehensive training. Participation in community activity projects offers students the opportunity to apply their knowledge and skills for the collective well-being.

OBJECTIVES

The objectives are to promote students' social engagement, contribute to community development, strengthen the university-community relationship, provide services and training, stimulate interdisciplinarity, and develop students' skills related to the evaluation of human movement and its interferences in therapeutic practice in order to raise awareness of social issues, promote inclusion and reduce inequalities, foster critical reflection, produce applied knowledge, and positively impact both the community and students' education.

CONTENT

- Reviewing the objectives of Community Extension: Concepts, principles, and the importance of university extension in the community.
- Discussion to define the Sustainable Development Goals (SDGs) to be addressed in the project.
- Group division, selection of leaders, and definition of project themes.
- Needs Identification: identification of the needs and demands of the target community to guide the extension project.
- Project Development: Stages and key elements in extension project development focused on identifying postural alterations as well as surveying musculoskeletal dysfunctions related to youth.
- Completion of the DreamShaper platform; Schedule and required resources.
- Holding an event that incorporates the objectives of the projects. Visit from local high school students.
- Discussion to determine the theme and organization of the next event.
- Contact with the target audience for event dissemination.
- Reading materials, discussions with advisors, preparation of resources.
- Reflection and Self-Assessment: Spaces for individual and collective reflection on project experiences, aiming at continuous learning and improvement.

- Presentation of Results: Preparation and presentation of project results to the academic community and the target community, sharing achievements and lessons learned throughout the process.

BASIC REFERENCES

MAGEE, D. J. **Avaliação musculoesquelética**. Manole. 4th ed. São Paulo, 2004. (2010 4 copies).

BICKLEY, Lynn S; SZILAGYI, Peter G. **Bates: propedêutica médica**. 13th ed. Rio de Janeiro, RJ: Guanabara Koogan, 2022 (2015 26 copies / 2005 22 copies).

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KENDALL, Florence Peterson; MCCREARY, Elizabeth Kendall; PROVANCE, Patricia Geise. **Músculos: provas e funções: com postura e dor**. 5th ed. São Paulo, SP: Manole, 2007.

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Course: INTERDISCIPLINARY EXTENSION IV
Workload: 60 h/classes

EMENTA

The interdisciplinary extension project seeks to foster an understanding of each individual's social responsibility within their social context. The student is seen as an agent of social transformation, capable of promoting positive changes in the community. Community engagement is valued as an important learning factor for a comprehensive education. Participation in community activity projects offers students the opportunity to apply their knowledge and skills for the collective well-being.

OBJECTIVES

The objectives are to promote students' social engagement, contribute to community development, strengthen the university-community relationship, offer services and training, stimulate interdisciplinarity, develop students' skills related to knowledge of human movement and its influences on assessment and therapeutic practice in order to raise awareness of social issues, promote inclusion and reduce inequalities, foster critical reflection, produce applied knowledge and positively impact the community and the students' training.

CONTENT

• Revisiting the objectives of Community Extension: concepts, principles and the importance of university extension in the community.
• Discussion to define the Sustainable Development Goals (SDGs) that will be addressed in the project.
• Division of groups, selection of leaders and definition of project themes.
• Identification of demands: identifying the needs and demands of the target community to guide the

extension project.
• Project development: stages and fundamental elements in preparing extension projects aimed at identifying the most common chronic diseases in the community, pursuing a preventive approach and clarifying for patients the necessary adaptations in their homes as well as explaining these adaptations and how they can reflect on the quality of life of patients with chronic diseases.
• Completion of the DreamShaper platform; schedule and required resources.
• Carrying out an event that composes the project objectives. Visit by high-school students from the local community.
• Discussion to determine the topic and organization of the next event.
• Contact with the target audience to publicize the event.
• Reading materials, discussions with advisors, preparation of resources.
• Reflection and self-assessment: spaces for individual and collective reflection on the experiences lived in the project, aiming at continuous learning and improvement.
• Presentation of results: preparation and presentation of the project's results to the academic community and the target community, sharing the achievements and lessons learned throughout the process.

BASIC REFERENCES

MAGEE D.J. **Musculoskeletal Assessment**. Manole. 4th ed. São Paulo, 2004. (2010 4th print)
BARBOSA, L. G. **Preventive physiotherapy in work-related musculoskeletal disorders: DORTS**. Rio de Janeiro: Guanabara Koogan, 2002.
MAGALHÃES, M. F. **Strategies for sustainable development: ESG + P (environment, society, governance, people)**, São Paulo, Atlas, 2023

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MOREIRA, T. M. M. **University and university extension: the view of residents of surrounding communities**. Educação em Revista, v.28, n.4, p.169-174, 2012.

Course: INTERDISCIPLINARY EXTENSION V
Workload: 60 h/classes

SYLLABUS

The interdisciplinary extension project seeks to foster the understanding of each individual's social responsibility within their social context. The student is seen as an agent of social transformation, capable of promoting positive changes in the community. Community experience is valued as an important learning factor for comprehensive education. Participation in community activity projects offers students the opportunity to apply their knowledge and skills for collective well-being.

OBJECTIVES

The objectives are to promote students' social engagement, contribute to community development, strengthen the university–community relationship, provide services and training, stimulate interdisciplinarity, develop students' skills related to the assessment and recognition of human

movement dysfunctions and their interferences in therapeutic intervention and prevention practices in order to raise awareness of social issues, promote inclusion and reduce inequalities, foster critical reflection, produce applied knowledge, and positively impact the community and students' education.

CONTENT

- Revisiting the objectives of Community Extension: concepts, principles, and importance of university extension in the community.
- Discussion to define the Sustainable Development Goals (SDGs) that will be addressed in the project.
- Division of groups, selection of leaders, and definition of project themes.
- Identification of demands: identifying the needs and demands of the target community to guide the extension project.
- Project development: stages and fundamental elements in preparing extension projects focused on identifying the most common chronic diseases in the community and human aging, aiming at patient guidance as well as the prevention of injuries resulting from sedentary lifestyle and immobility.
- Completion of the DreamShaper platform; schedule and necessary resources.
- Carrying out an event that is part of the project objectives. Visit by local high-school students.
- Discussion to determine the topic and organization of the next event.
- Contact with the target audience to publicize the event.
- Reading materials, discussions with advisors, preparation of resources.
- Reflection and self-assessment: spaces for individual and collective reflection on the experiences lived in the project, aiming at continuous learning and improvement.
- Presentation of results: preparation and presentation of the project's results to the academic community and the target community, sharing achievements and lessons learned throughout the process.

BASIC REFERENCES

GUCCIONE, A. A.; WONG, R. A.; AVERS, D. **Geriatric physiotherapy**. 3. Rio de Janeiro: Guanabara Koogan, 2013.
BARBOSA, L. G. **Preventive physiotherapy in work-related musculoskeletal disorders: WMSDs**. Rio de Janeiro: Guanabara Koogan, 2002.
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DELIBERATO, P. C. P. **Preventive physiotherapy: foundations and applications**. 2. Barueri: Manole, 2017.
GOHN, M. G. **Non-formal education, civil society participation, and collegiate structures in schools**. Ensaio: Avaliação e Políticas Públicas em Educação, v. 14, n. 50, 2006, p. 3; 27–38.
TAYLOR, A. W.; JOHNSON, M. J. **Exercise physiology in the elderly**. Barueri: Manole, 2015.

Course: INTERDISCIPLINARY EXTENSION VI
Workload: 80 h/classes

SYLLABUS

The interdisciplinary extension project seeks to foster the understanding of each individual's social responsibility within their social context. The student is seen as an agent of social transformation, capable of promoting positive changes in the community. Community experience is valued as an important learning factor for comprehensive education. Participation in community activity projects offers students the opportunity to apply their knowledge and skills for collective well-being.

OBJECTIVES

The objectives are to promote students' social engagement, contribute to community development, strengthen the university–community relationship, provide services and training, stimulate interdisciplinarity, develop students' skills related to the assessment and recognition of human movement dysfunctions and their interferences in therapeutic intervention and prevention practices in order to raise awareness of social issues, promote inclusion and reduce inequalities, foster critical reflection, produce applied knowledge, and positively impact the community and students' education.

CONTENT

- Revisiting the objectives of Community Extension: concepts, principles, and importance of university extension in the community.
- Discussion to define the Sustainable Development Goals (SDGs) that will be addressed in the project.
- Division of groups, selection of leaders, and definition of project themes.
- Identification of demands: identifying the needs and demands of the target community to guide the extension project.
- Project development: stages and fundamental elements in preparing extension projects focused on home care and public health, addressing the most common chronic diseases present in the community.
- Completion of the DreamShaper platform; schedule and necessary resources.
- Carrying out an event that is part of the project objectives. Visit by local high-school students.
- Discussion to determine the topic and organization of the next event.
- Contact with the target audience to publicize the event.
- Reading materials, discussions with advisors, preparation of resources.
- Reflection and self-assessment: spaces for individual and collective reflection on the experiences lived in the project, aiming at continuous learning and improvement.
- Presentation of results: preparation and presentation of the project's results to the academic community and the target community, sharing achievements and lessons learned throughout the process.

BASIC REFERENCES

LEONARDO, C. M. S. et al. (Org.) **Treatise on home care**. Santana de Parnaíba: Manole, 2022. CAMPOS, G. W. S. et al. (Orgs.). **Treatise on collective health**. 2. ed. São Paulo: Hucitec, 2015. MAGALHÃES, M. F. **Strategies for sustainable development: ESG + P (environment, society, governance, people)**, São Paulo: Atlas, 2023.

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SOLHA, R. K. T. **Unified Health System: components, guidelines, and public policies**. São Paulo: Erica, 2014.
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TAYLOR, A. W.; JOHNSON, M. J. **Exercise physiology in the elderly**. Barueri: Manole, 2015.

Course: INTERDISCIPLINARY EXTENSION VII
Workload: 60 h/classes

SYLLABUS

The interdisciplinary extension project seeks to foster the understanding of each individual's social responsibility within their social context. The student is seen as an agent of social transformation, capable of promoting positive changes in the community. Community experience is valued as an important learning factor for comprehensive education. Participation in community activity projects offers students the opportunity to apply their knowledge and skills for collective well-being.

OBJECTIVES

The objectives are to promote students' social engagement, contribute to community development, strengthen the university–community relationship, provide services and training, stimulate interdisciplinarity, develop students' skills related to the assessment and recognition of human movement dysfunctions and their interferences in therapeutic intervention and prevention practices in the sports field, in order to raise awareness of social issues, promote inclusion and reduce inequalities, foster critical reflection, produce applied knowledge, and positively impact the community and students' education.

CONTENT

- Revisiting the objectives of Community Extension: concepts, principles, and importance of university extension in the community.
- Discussion to define the Sustainable Development Goals (SDGs) that will be addressed in the project.
- Division of groups, selection of leaders, and definition of project themes.
- Identification of demands: identifying the needs and demands of the target community to guide the extension project.
- Project development: stages and fundamental elements in preparing extension projects focused on sports physiotherapy and the most common injuries related to recreational and high-performance sports, aiming at assessment and proposals for preventive interventions.
- Completion of the DreamShaper platform; schedule and necessary resources.
- Carrying out an event that is part of the project objectives. Visit by local high-school students.
- Discussion to determine the topic and organization of the next event.
- Contact with the target audience to publicize the event.
- Reading materials, discussions with advisors, preparation of resources.
- Reflection and self-assessment: spaces for individual and collective reflection on the experiences lived in the project, aiming at continuous learning and improvement.
- Presentation of results: preparation and presentation of the project's results to the academic community and the target community, sharing achievements and lessons learned throughout the process.

BASIC REFERENCES

MAGEE, D. J. **Musculoskeletal assessment**. Manole. 4th ed. São Paulo, 2004. (2010 4th print).
MAGALHÃES, M. F. **Strategies for sustainable development: ESG + P (environment, society, governance, people)**, São Paulo: Atlas, 2023.
PRETINCE, W. E. **Physiotherapy in sports practice: a competency-based approach**. 14. ed. Porto Alegre: AMGH, 2012.

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DUTTON, M. **Orthopedic physiotherapy**. Porto Alegre: Artmed, 2007.
NEUMANN, Donald A. **Kinesiology of the musculoskeletal system: foundations for rehabilitation**. Rio de Janeiro: GEN Guanabara Koogan, 2018.
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Course: INTERDISCIPLINARY EXTENSION VIII
Workload: 60 h/classes

SYLLABUS

The interdisciplinary extension project seeks to foster the understanding of each individual's social responsibility within their social context. The student is seen as an agent of social transformation, capable of promoting positive changes in the community. Community experience is valued as an important learning factor for comprehensive education. Participation in community activity projects offers students the opportunity to apply their knowledge and skills for collective well-being.

OBJECTIVES

The objectives are to promote students' social engagement, contribute to community development, strengthen the university-community relationship, provide services and training, encourage interdisciplinarity, and develop skills in students related to the assessment and recognition of human movement dysfunctions and their interferences in therapeutic intervention and prevention practices in the sports field, in order to raise awareness of social issues, promote inclusion and reduce inequalities, foster critical reflection, produce applied knowledge, and positively impact both the community and the students' education.

CONTENT

- Reviewing the objectives of Community Extension: Concepts, principles, and importance of university extension in the community.
- Discussion for defining the Sustainable Development Goals (SDGs) to be addressed in the project.
- Group division, selection of leaders, and definition of project themes.
- Demand Identification: identification of the needs and demands of the target community to guide the extension project.
- Project Development: Steps and fundamental elements in the development of extension projects focused on sports physiotherapy and the most common injuries related to recreational and high-performance sports, aiming at developing proposals for physiotherapeutic protocols for monitoring and treating sports injuries.

- Completion of the DreamShaper platform; Schedule and required resources.
- Organization of an event aligned with the objectives of the projects. Visit of local high school students.
- Discussion to determine the theme and organization of the next event.
- Contact with the target audience for event dissemination.
- Reading materials, discussions with advisors, preparation of resources.
- Reflection and Self-assessment: Spaces for individual and collective reflection on the experiences lived in the project, aiming at continuous learning and improvement.
- Presentation of Results: Preparation and presentation of project results to the academic community and the target community, sharing the achievements and lessons learned throughout the process.

BASIC REFERENCES

MAGEE, D.J. **Musculoskeletal Evaluation**. Manole. 4th ed. São Paulo, 2004. (2010 4th printing.)
MAGALHÃES, M. F. **Strategies for Sustainable Development: ESG + P (environment, society, governance, people)**. São Paulo: Atlas, 2023.
LIGUORI, G. et al. **ACSM's Guidelines for Exercise Testing and Prescription**. 11th ed. Rio de Janeiro: Guanabara Koogan, 2023.

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DUTTON, M. **Orthopaedic Physical Therapy**. Porto Alegre: Artmed, 2007.
VASCONCELOS, G. S. et al. **Trauma-Orthopaedic and Sports Physiotherapy**. Porto Alegre: SAGAH, 2021.
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Course: PHARMACOLOGY
Workload: 40 h/classes

SYLLABUS

Study of drug action on the various systems of the human body. Absorption, interaction, metabolism, and excretion of drugs. Most commonly used drugs in physiotherapy practice, their risks, and benefits.

OBJECTIVES

To build with the student the basic knowledge of pharmacology essential for the training of healthcare professionals, enabling them to act in specific and multiprofessional contexts. To provide students with basic pharmacological knowledge covering pharmacokinetic processes: absorption, distribution, metabolism, and elimination; and pharmacodynamic processes: mechanisms of drug action. To enable the physiotherapy professional to have a broadened perspective, allowing interaction with the multiprofessional team.

CONTENT

- Introduction to pharmacology and its importance in the field of physiotherapy.
- Fundamental concepts – history of pharmacology.
- General terminology – types of drugs and administration routes.

- Pharmacokinetics and pharmacodynamics: concepts and implications – administration, distribution, biotransformation, and excretion.
- Anti-inflammatory drugs.
- Anti-inflammatory drugs: NSAIDs, steroids.
- Analgesic drugs: Peripheral-acting analgesia.
- Central-acting analgesia, clinical physiotherapeutic implications.
- Cardiovascular pharmacology: antiarrhythmics.
- Vasoactive drugs and regulators of cardiac activity.
- Respiratory system drugs: bronchodilators, bronchoconstrictors, antitussives.
- Nervous system pharmacology: Autonomic nervous system drugs.
- Central nervous system drugs, drug action sites – associated pathologies and application in physiotherapy.
- Musculoskeletal pharmacology: neuromuscular blocking agents.
- Skeletal muscle relaxants. Smooth muscle relaxants. Pharmacology of muscle spasm.
- Antibiotics – action on the cell membrane.
- The role of electrolytes and vitamins.

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RANG, H. P. et al. **Rang & Dale's Pharmacology**. 7th ed. Rio de Janeiro: Elsevier, 2012. ISBN-10: 8535241728.
HILAL-DANDAN, R.; BRUNTON, L. L. (Eds.). **Goodman & Gilman's Manual of Pharmacology and Therapeutics**. 2nd ed. Porto Alegre: AMGH, 2015. ISBN-10: 8580554500.
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GOLAN, D. E. (Ed.). **Principles of Pharmacology: The Pathophysiologic Basis of Drug Therapy**. 3rd ed. Rio de Janeiro: Guanabara Koogan, 2014. ISBN: 8527723654.
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KATZUNG, B. G. (Ed.). **Basic and Clinical Pharmacology**. 13th ed. Rio de Janeiro: Guanabara Koogan, 2017.

Course: HUMAN PHYSIOLOGY
Workload: 60 h/classes

SYLLABUS

Functions of body fluids. Blood. Central and peripheral nervous system. Neurophysiology. Cardiovascular system. Respiratory system. Urinary system. Digestive system. Metabolism and regulation of body temperature. Endocrine system. Reproductive system. Study of regulatory and integrative mechanisms and adaptive responses of the organism.

OBJECTIVES

To understand the functions of the organs and systems of the human body. To study the functional organization of the human body, explaining the characteristics and specific mechanisms of its functioning.

General Competencies: healthcare; decision-making; communication; lifelong learning. Knowledge: conception of the functioning of the human body.

Skills: observation; association; reflection; decision-making; comprehension. Attitudes: interest; discipline; commitment; respect; responsibility; ethics; lifelong learning.

CONTENT

- Introduction to Physiology, concept of homeostasis.
- Cardiorespiratory: Cardiac cycle. Cardiac output and venous return. / Circulatory hemodynamics.
- Blood pressure and its regulation. / Special circulations: coronary, skin, muscle, skeletal, cerebral, and pulmonary.
- Respiratory mechanics and pulmonary ventilation. Gas exchange and gas transport in blood. Regulation of breathing and the role of the lungs in acid-base balance.
- Digestive: General aspects of digestion. Mouth / Pharynx / Esophagus and Stomach.
- Pancreatic and biliary secretions / Small intestine and large intestine.
- Endocrine: Pituitary gland: main hormones and their functions. Thyroid gland: main hormones and their functions.
- Hormonal control of calcium and phosphorus metabolism. Adrenal cortex and medulla: main hormones and their functions.
- Endocrine pancreas: main hormones and their functions.
- Reproductive physiology: Ovaries and Testes: main hormones and functions. Endocrinology of pregnancy, childbirth, and lactation.
- Renal physiology: Body fluid compartments. Kidney function. Glomerular filtration. Excretion of water and electrolytes. Regulation of internal volume and concentration. Regulation of acid-base balance.
- Muscle physiology: Molecular basis of skeletal muscle contraction and mechanical properties. Skeletal muscle metabolism and fiber types.
- Control of somatic and autonomic motor activity.
- Neurophysiology: Membrane potential. Generation and conduction of action potential. Synapses and neural integration circuits. Neurotransmitters.
- General and special sensory nervous system. Hypothalamic functions / Biological rhythms. Sleep-wake cycle.

BASIC BIBLIOGRAPHY

GUYTON, A. **Textbook of Medical Physiology**. 11th ed. Rio de Janeiro: Guanabara Koogan, 2006.
SILVERTHORN, Dee Unglaub. **Human Physiology: An Integrated Approach**. 7th ed. Porto Alegre: ArtMed, 2017.
TORTORA, G.J. **The Human Body: Fundamentals of Anatomy and Physiology**. 6th ed. Porto Alegre: Artmed, 2007.

SUPPLEMENTARY BIBLIOGRAPHY

BARRETT, Kim E. et al. **Ganong's Review of Medical Physiology**. 24th ed. Porto Alegre: AMGH, 2013.
MOURÃO JUNIOR, C. A.; ABRAMOV, D. M. **Human Physiology**. 2nd ed. Rio de Janeiro: Guanabara Koogan, 2021.
AIRES, M. M. **Physiology**. 5th ed. Rio de Janeiro: Guanabara Koogan, 2018.

Course: EXERCISE PHYSIOLOGY
Workload: 80 h/classes

EMENTA

The course consists of introducing, grounding, and developing knowledge of pertinent and fundamental concepts regarding the physiological changes that occur during and as a consequence of physical exercise. It discusses the control of systemic adjustments and adaptations to physical effort, the systemic effects of physical training, and functional limitation indices. It also addresses the importance of physical exercise in health promotion, as well as its relationship with pathological changes and exercise prescription.

OBJECTIVES

To present the systems responsible for the functioning of the human body during physical exercise and the adaptations the organism undergoes in the short and long term due to effort. To provide students with knowledge of the application of exercise physiology and its importance in various areas of rehabilitation practice. To study the methods used by exercise physiology for assessing physical capacity and prescribing exercise.

CONTENTS

- Basic definitions in exercise physiology
- Internal environment control (homeostasis)
- Acute and chronic responses of the body to physical activity
- Exercise metabolism
- Work, power, and energy expenditure measurements
- Effects and adaptations of the musculoskeletal system to physical exercise
- Adaptive effects of physical training on the cardiovascular system
- Effects of different types of exercise: isotonic, isometric, and mixed
- Functional and structural repercussions of physical exercise on the cardiovascular system
- Adaptive effects of the respiratory system to exercise
- Acute and chronic effects
- Minute Volume and Tidal Volume
- Main tests for measuring physical effort
- Physical exercise and its applications in chronic respiratory and cardiovascular diseases
- Physical exercise and its applications in neurological diseases – stroke – myopathies

BASIC BIBLIOGRAPHY

POWERS, S. K.; HOWLEY, E. T. **Exercise Physiology: Theory and Application to Fitness and Performance**. 9th ed. Barueri: Manole, 2017.
KRAEMER, W. J.; FLECK, S. J.; DESCHENES, M. R. **Exercise Physiology: Theory and Practice**. 2nd ed. Rio de Janeiro: Guanabara Koogan, 2016.
ANDRADE, M. S.; LIRA, C. A. B. **Exercise Physiology**. Barueri: Manole, 2016.

SUPPLEMENTARY BIBLIOGRAPHY

MCARDLE, W. D.; KATCH, F. I.; KATCH, V. L. **Exercise Physiology: Energy, Nutrition, and Human Performance**. 5th ed. Rio de Janeiro: Guanabara Koogan, 2008.
GUYTON, A. C.; HALL, J. **Textbook of Medical Physiology**. 11th ed. Rio de Janeiro: Interamericana,

2006.
WILMORE, J. H.; COSTILL, D. L. **Physiology of Sport and Exercise**. 7th ed. São Paulo: Manole, 2020.

Course: AQUATIC PHYSIOTHERAPY
Workload: 40 h/classes

SYLLABUS

Introduction to the principles and techniques of aquatic physiotherapy, with emphasis on rehabilitation and the treatment of musculoskeletal and neurological conditions. Study of the therapeutic benefits of water, planning of hydrotherapy sessions, evaluation, and follow-up of patients.

OBJECTIVES

- Understand the basic principles of hydrotherapy.
- Develop practical skills in patient evaluation and treatment in water.
- Apply theoretical knowledge in the rehabilitation of patients with different health conditions.
- Explore the therapeutic benefits of water as a treatment environment.
- Promote patient safety during hydrotherapy sessions.

CONTENTS

- History of hydrotherapy
- Physical principles of the therapeutic pool
- Therapeutic pool and physiological/therapeutic effects of exercise in therapeutic pool
- Patient assessment in the pool, advantages and disadvantages (indications and contraindications)
- Entry and exit techniques in the Therapeutic Pool and hydrotherapy department equipment
- Crenotherapy and Thalassotherapy
- Principles of treatment (handling and specific techniques) and Halliwick Method, Bad Ragaz Method, and Watsu Method

BASIC BIBLIOGRAPHY

PARREIRA, P.; BARATELLA, T. V. **Aquatic Physiotherapy**. Barueri: Manole, 2011.
VASCONCELOS, G. S. [et al.]. **Aquatic Physiotherapy**. Porto Alegre: SAGAH, 2021.
DELISA, J. **Rehabilitation Medicine: Principles and Practice**. 3rd ed. São Paulo: Manole, 2002.

SUPPLEMENTARY BIBLIOGRAPHY

FERNANDES, A. C. [et al.]. **AACD Medicine and Rehabilitation: Principles and Practice**. São Paulo: Artes Médicas, 2007.
LIANZA, S. (Coordinator-Editor). **Rehabilitation Medicine**. Rio de Janeiro: Guanabara Koogan, 2011.
O'SULLIVAN, S. B.; SCHIMITZ, T. J. **Physical Rehabilitation: Assessment and Treatment**. 5th ed. Barueri: Manole, 2010.

Course: CARDIOVASCULAR PHYSIOTHERAPY
Workload: 80 h/classes

SYLLABUS

Study of Physiotherapy applied to practice, assessment, and management of pathologies involving cardiac and peripheral vascular disorders; aiming at assessment, planning, and therapy for these conditions. Approach to these alterations from the physiotherapeutic and clinical perspectives, identification of methods, and practice of physiotherapeutic techniques applicable to these alterations. General principles of physical capacity evaluation tests, knowledge, and practice of techniques used in physiotherapeutic treatment for the rehabilitation of this system. Promotion of understanding of basic concepts through knowledge of anatomy, physiology, and pathophysiology of the cardiovascular system, and an introduction to complementary exams in hospital support: electrocardiogram, blood gas analysis, chest radiology, and basics of mechanical ventilation.

OBJECTIVES

Prepare the student to understand cardiac and vascular diseases, instructing them on anatomical, physiological, and pathological mechanisms. Discuss and demonstrate physiotherapeutic methods and techniques applicable to the treatment of the clinical manifestations of these diseases. Enable students to identify dysfunction and evaluate the patient globally with emphasis on the cardiovascular system. Present and discuss the use of different physiotherapeutic techniques and resources for the treatment of cardiac and vascular pathologies. Prepare students for the elaboration of a physiotherapeutic treatment plan applied to these conditions. Discuss clinical cases of cardiovascular diseases, aiming at the development of clinical, critical, and ethical reasoning for the elaboration of prognosis and physiotherapeutic treatment. Enable students to establish treatment objectives and plan therapy programs by selecting appropriate methods and techniques for cardiovascular diseases, as well as programs for prevention and rehabilitation of heart diseases.

CONTENTS

- Review of cardiovascular system anatomy and physiology
- Semiological assessment of cardiovascular system: arteriopathies and venopathies
- Heart/lung interaction
- Cardiac cycle, basics of electrocardiogram
- Coronary artery disease (CAD) and atherosclerosis
- Angina and acute myocardial infarction (AMI)
- Arterial hypertension: risk factors, prevention
- Heart failure, hemodynamic profile/Functional class
- Surgeries: upper abdominal, thoracotomies, cardiac surgery; Physiotherapy in pre- and post-operative stages
- Cardiovascular Rehabilitation
- Congenital cardiopathies
- Cardiomyopathies: rheumatic fever and valvulopathies
- Venous thromboembolism (VTE), pulmonary embolism (PE), deep vein thrombosis (DVT)
- Oxygen therapy / Non-invasive ventilation / Theoretical therapeutic resources of Respiratory Physiotherapy techniques
- Cardiopulmonary arrest / Cardiac rhythms and arrhythmias

BASIC BIBLIOGRAPHY

PASCHOAL, M. A. **Cardiovascular Physiotherapy: Assessment and Management in Cardiac Rehabilitation**. Barueri: Manole, 2010.
PRYOR, J. A.; WEBBER, B. A. **Exercise Physiology: Theory and Application to Fitness and Performance**. 5th ed. Barueri: Manole, 2005.
REGENGA, M. M. **Physiotherapy in Cardiology: From Intensive Care Unit to Rehabilitation**. 2nd ed. São Paulo: Roca, 2012.

SUPPLEMENTARY BIBLIOGRAPHY

AEHLERT, Barbara. **ACLS Advanced Cardiac Life Support: Cardiology Emergencies: Advanced Life Support in Cardiology – A Study Guide**. 3rd ed. São Paulo: Mosby Elsevier, 2007.
FARRET, Jaqueline Faria (Ed.). **Nutrition and Cardiovascular Diseases: Primary and Secondary Prevention**. São Paulo: Atheneu, 2005.
YASBEK JR, P.; SABBAG, L. M. S.; BATTISTELLA, L. R. **Treatise on Rehabilitation: Guidelines for Cardiovascular, Neuromuscular, and Musculoskeletal Conditions**. São Paulo: Phorte, 2010.

Course: DERMATO-FUNCTIONAL PHYSIOTHERAPY
Workload: 80 h/classes

SYLLABUS

Addressing knowledge about dermatological-functional dysfunctions of aesthetic, pathological, and functional order, understanding health in a global and ethical way. Integrating content and therapeutic resources for the development of actions in this area. Developing critical sense for decision-making and discussing the selection and application of techniques aimed at the physiotherapist's role in the three levels of health care.

OBJECTIVES

Provide the student with theoretical-practical knowledge directed at dermato-functional dysfunctions in a broad way;

Through the theoretical and practical understanding of therapeutic and preventive aesthetic concepts and procedures, the discipline of Dermato-Functional Physiotherapy specifically aims to provide students with the ability to diagnose and evaluate dysfunctions in the Dermato-Functional area, as well as to elaborate therapeutic proposals for the treatment of these dysfunctions, ensuring the physical-functional recovery of metabolic, dermatological, vascular, lymphatic, and musculoskeletal disorders. Correctly use manual and electro-thermo-phototherapeutic therapeutic resources, based on theoretical and practical foundations.

CONTENT

- Introduction to Dermato-Functional Physiotherapy: concept, brief history, recognition as a specialty, professional practice perspectives, and review of the integumentary system
- Facial unaesthetic conditions, aging, dyschromia, and acne
- Elementary skin lesions and facial evaluation
- Skin cleansing

- Types of peelings
- Facial electrotherapy
- Body unaesthetic conditions: obesity, localized adiposity, fibrous edematous panniculopathy, striae, flaccidity
- Body unaesthetic conditions – body electrotherapy
- Shaping massage
- Physiotherapeutic approach – burns
- Physiology of cutaneous healing and its complications
- Therapeutic approaches in tissue repair
- Plastic surgeries – physiotherapeutic approach
- Physiotherapeutic approach – lymphedema

BASIC BIBLIOGRAPHY

RIVITTI E. A. **Dermatologia de Sampaio e Rivitti**. Porto Alegre: Artes Médicas, 2018.
ANDERSON B. E. **Sistema tegumentar**. Rio de Janeiro: GEN Guanabara Koogan, 2014.
RENNÓ A. C. M.; MARTIGNAGO C. C. S. **Manual prático de cosmetologia e estética: do básico ao avançado**.

SUPPLEMENTARY BIBLIOGRAPHY

STAMM L. N.; ROSA P. V. **Estética aplicada à cirurgia plástica**. Porto Alegre: SER – SAGAH, 2019.
BORGES F. S. **Dermato-funcional: modalidades terapêuticas nas disfunções estéticas**. 2nd ed. rev. and enl. São Paulo, SP: Phorte, 2012.
LEDUC A. **Drenagem linfática: teoria e prática**. 3rd ed. Barueri, SP: Manole, 2007.

Disciplina: SPORTS PHYSIOTHERAPY
Workload: 80 h/classes

SYLLABUS

Introduction to the principles of Sports Physiotherapy with a focus on therapeutic practices and the most common injuries in athletes. Topics will include functional anatomy, injury assessment, rehabilitation, injury prevention, and return to sport.

OBJECTIVES

Prepare students, in general, for injury prevention and the maintenance of quality of life and health; postural assessment and guidance; correction of postural deviations typical of sports injuries; kinesiotherapy for injury recovery, as well as physiotherapeutic strategies for various sports injuries.

CONTENT

- Definition of Sports Physiotherapy
- Athlete Recovery Process (tissue changes in sports injury)
- Psychological Aspects of the Injured Athlete
- Physiotherapeutic Assessment of Athletes in acute and chronic injuries of the lower limb
- Physiotherapeutic Assessment of Athletes in acute and chronic injuries of the upper limb
- Physiotherapeutic Assessment of Athletes in acute and chronic spinal injuries
- Protection and prevention techniques for musculoskeletal injuries using bandages for lower limbs

- Protection and prevention techniques for musculoskeletal injuries using bandages for upper limbs
- Physical resources in the treatment of athletes and sportspeople
- Rehabilitation of musculoskeletal injuries in athletes for hip and knee
- Rehabilitation of musculoskeletal injuries in athletes for ankle and foot
- Shoulder rehabilitation in athletes
- Rehabilitation of elbow, wrist, and hand in athletes
- Functional tests in athletes and sportspeople

BASIC BIBLIOGRAPHY

PRETINCE, W. E. **Fisioterapia na prática esportiva: uma abordagem baseada em competências**. 14th ed. Porto Alegre: AMGH, 2012.
DUTTON, M. **Fisioterapia ortopédica**. Porto Alegre: Artmed, 2007.
VASCONCELOS, G. S. et al. **Fisioterapia traumato-ortopédica e esportiva**. Porto Alegre: SAGAH, 2021.

SUPPLEMENTARY BIBLIOGRAPHY

HUTCHINSON, MARQUE. MARK. **Anatomia de Lesões no Esporte: um guia ilustrado**. Barueri, São Paulo: Manole, 2011.
FERREIRA, T. V. **Tópicos especiais em recursos terapêuticos no esporte**. São Paulo: Platos Soluções Educacionais, 2021.
LIGUORI, G. et al. **Diretrizes do ACSM para os testes de esforço e sua prescrição**. 11th ed. Rio de Janeiro: Guanabara Koogan, 2023.

Course: GERIATRIC PHYSIOTHERAPY
Workload: 60 h/classes

EMENTA

The discipline studies and emphasizes human aging, not only from the gerontological point of view but mainly through a didactic approach to the aging process. It focuses on social, anthropological, legal, nutritional, physiological aspects of rehabilitation, and health maintenance, with a vision of the depth of “aging.”

OBJECTIVES

Enable students to observe the variables that affect the elderly’s integral health in its various dimensions: ethical aspects, preventive care, rehabilitation, maintenance of functional capacity, geriatric syndromes, most common diseases, for efficient and effective physiotherapy practice.

CONTENT

- Definitions of geriatrics and gerontology
- Aging and the aging process
- Physiology of aging
- Elderly assessment
- Functional capacity
- Most common diseases in the elderly
- Specific care in the elderly
- Geriatric rehabilitation
- Anthropological, legal, and social aspects

- Functional training
- Respiratory rehabilitation
- Sensory rehabilitation
- Neurological rehabilitation
- Urological rehabilitation
- Home care
- Assistance to the terminally ill elderly

BASIC BIBLIOGRAPHY

GUCCIONE, A. A.; WONG, R. A.; AVERS, D. **Fisioterapia geriátrica**. 3rd ed. Rio de Janeiro: Guanabara Koogan, 2013.
REBELATTO, J. R.; MORELLI, J. G. S. **Fisioterapia geriátrica: a prática da assistência ao idoso**. 2nd ed. Barueri: Manole, 2007.
NETTO, M. P. **Gerontologia: a velhice e o envelhecimento em visão globalizada**. São Paulo, SP: Atheneu, 2005.

SUPPLEMENTARY BIBLIOGRAPHY

FREITAS, E. V.; PY, L. (ed.). **Tratado de geriatria e gerontologia**. 4th ed. Rio de Janeiro: Guanabara Koogan, 2016.
TAYLOR, A. W.; JOHNSON, M. J. **Fisiologia do exercício na terceira idade**. Barueri: Manole, 2015.
DINIZ, L.; RAMPAZZO et al. (org.). **Geriatria**. Rio de Janeiro: MedBook, 2019.

Disciplina: NEONATAL PHYSIOTHERAPY
Workload: 60 h/classes

SYLLABUS

The discipline is based on the need for the physiotherapist to know, manage, and act in the different stages of neonatal and pediatric patient development, enabling efficiency and effectiveness in handling pathologies.

OBJECTIVES

- Recognize and anatomically differentiate the various parts of the neonate's body and assimilate the main physiotherapeutic techniques applied to diverse pathologies.
- Acquire general theoretical and practical knowledge of neonatology and pediatric physiotherapy; develop understanding of prognosis and hospital discharge; develop competencies for practice.

CONTENT

- Respiratory Anatomy and Physiology of the Neonate
- Respiratory Physiotherapy Maneuvers in Pediatrics and Neonatology
- Prematurity
- Arterial Blood Gas Analysis
- Oxygen Therapy
- Invasive Mechanical Ventilation in Neonatology and Pediatrics
- Non-Invasive Mechanical Ventilation in Neonatology and Pediatrics

- Bronchiolitis
- Respiratory Physiotherapy Resources in Neonatology and Pediatrics
- Physiotherapy in Pediatric and Neonatal Cardiac Surgeries
- Respiratory Physiotherapy in Progressive Spinal Muscular Atrophy
- Respiratory Physiotherapy for Children with Abdominal and Thoracic Surgeries
- Physiotherapy in Cystic Fibrosis
- Physiotherapy in Pneumonia and Pleural Effusion in Pediatrics and Neonatology
- Infant Wheezing Disease + Asthma
- Atelectasis in Childhood

BASIC BIBLIOGRAPHY

AULER JÚNIOR, J. O. C.; AMARAL. **Assistência ventilatória mecânica**. São Paulo, SP: Atheneu, 2006.
LANZA, F. C.; GAZZOTTI, M. R.; PALAZZIN, A. (org.). **Fisioterapia em pediatria e neonatologia: da UTI ao ambulatório**. 2nd ed. Barueri: Manole, 2019.
RIBEIRO, D. C.; SHIGUEMOTO, T. S. (ed.). **O ABC da fisioterapia respiratória**. 2nd ed. Barueri: Manole, 2015.

SUPPLEMENTARY BIBLIOGRAPHY

TECKLIN, J. S. **Fisioterapia pediátrica**. 5th ed. Barueri: Manole, 2019.
PRADO, C.; VALE, L. A. (coord.). **Fisioterapia neonatal e pediátrica**. Barueri: Manole, 2012.
LAHÓZ, A. L. C. et al. **Fisioterapia em UTI pediátrica e neonatal**. Barueri, SP: Manole, 2009. 160 p. (Pediatria Instituto da Criança Hospital das Clínicas; v. 10) ISBN 9788520428603

Course: HOSPITAL PHYSIOTHERAPY AND BIOSAFETY
Workload: 80 h/classes

SYLLABUS

Introduce, establish, and develop knowledge about specific actions in the hospital environment and the physiotherapist's role within it. Covers concepts of hospital, emergency and urgency care, patient handling techniques, infection control, and multidisciplinary teamwork.

OBJECTIVES

- Understand the hospital environment and physiotherapy practice, including the multidisciplinary team context.
- Provide students with:
    - Basic principles of hospital environment and physiotherapist role
    - Knowledge about infection control, surgeries, immobility, and burns
    - Adoption of biosafety standards and best laboratory practices
    - Understanding of microorganism characteristics, risk levels, and preventive measures
    - Knowledge of personal protective equipment (PPE) and collective protective equipment (CPE) use in hospitals and healthcare settings

CONTENT

- Hospital Environment:
    - Definition, urgency/emergency, classification, units, patient characterization, general care, and rights

- Multidisciplinary Team:
    - Definition, models, hierarchy, responsibilities, hospital physiotherapy specialties
- Immobility syndrome and physiotherapy role
- Critical patient assessment and treatment
- Physiotherapeutic care in ward beds, pre- and post-operative orthopedic and cardiovascular patients
- Hemodynamic parameters for hospital kinesiotherapy
- Oxygen therapy
- Introduction to Biosafety: history, concepts, importance
- Infectious agents: bacterial, fungal, parasitic, viral
- Biosafety levels, risks, and risk maps
- Hand hygiene
- PPE and CPE use
- Biosafety in healthcare, hospital infection control, work accidents
- First aid, material handling, and disposal

BASIC BIBLIOGRAPHY

CAVALHEIRO, L. V.; GOBBI, F. C. M. (coord.). **Fisioterapia hospitalar**. Barueri: Manole, 2012.
BRITO, C. M. M. et al. (ed.). **Reabilitação hospitalar: manual do Hospital Sírio-Libanês**. Barueri: Manole, 2020.
HIRATA, M. H.; MANCINI FILHO, J.; HIRATA, R. D. C. **Manual de biossegurança**. 3rd ed. Barueri: Manole, 2017.

SUPPLEMENTARY BIBLIOGRAPHY

SARMENTO, G. J. V.; CORDEIRO, A. L. L. (ed.). **Fisioterapia respiratória aplicada ao paciente crítico: manual prático: atualizado COVID-19**. Barueri: Manole, 2020.
VELASCO, I. T. et al. (ed.). **Medicina de emergência: abordagem prática**. Barueri: Manole, 2022.
CARVALHO, R. (coord.). **Enfermagem em centro de material, biossegurança e bioética**. São Paulo, SP: Manole, 2015.

Course: ONCO-HEMATOLOGICAL PHYSIOTHERAPY AND PALLIATIVE CARE
Workload: 60 h/classes

SYLLABUS

This discipline aims to provide physiotherapy students with a comprehensive understanding of the needs and physiotherapeutic interventions for patients with onco-hematological diseases, along with an introduction to palliative care principles. Students learn to assess, plan, and implement physiotherapeutic interventions that improve quality of life and well-being for patients facing cancer or hematological diseases and those receiving palliative care.

OBJECTIVES

- Understand the pathophysiological bases of onco-hematological diseases and oncology principles
- Assess physical needs of patients with cancer and hematological conditions
- Identify common side effects of oncological and hematological treatments and their impact on physical function

- Plan and implement physiotherapeutic interventions to improve respiratory and musculoskeletal function
- Develop strategies for pain and fatigue management
- Understand palliative care principles and integrate them into physiotherapy practice
- Address emotional and psychosocial aspects of palliative patients
- Develop sensitive communication skills for patients and families in delicate situations

BASIC BIBLIOGRAPHY

SARMENTO, G. J. **Oncologia para fisioterapeutas**. 2nd rev. ed. Barueri: Manole, 2022.
TACANI, P. M. **Manual de condutas e práticas de fisioterapia em oncologia: neoplasias de cabeça e pescoço**. Barueri: Manole, 2017.
RODRIGUES, K. M. **Princípios dos cuidados paliativos**. Rio de Janeiro: ThiemeRevinter, 2021.

SUPPLEMENTARY BIBLIOGRAPHY

CARVALHO, T. C. et al. **Manual da residência de cuidados paliativos: abordagem multidisciplinar**. Barueri: Manole, 2022.
FLORENTINO, D. M. et al. **Manual de condutas e práticas fisioterapêuticas em uro-oncologia da ABFO**. Rio de Janeiro: ThiemeRevinter, 2021.
LEONARDO, C. M. S. et al. (Org). **Tratado de atenção domiciliar**. Santana de Parnaíba: Manole, 2022.

Course: NEUROFUNCTIONAL PHYSIOTHERAPY
Workload: 60 h/classes

SYLLABUS

Physiotherapeutic techniques for patients with neurological lesions. Focus on postural maintenance, hygiene, locomotion, and guidance to family members, emphasizing daily functional activities. Covers the full process from the initial functional kinesiology assessment to treatment execution, respecting ethical and humanistic principles.

OBJECTIVES

- Qualify professionals for effective treatment of neurological disorders using evidence-based, scientifically validated techniques.
- Increase patient independence and functional capacity.
- Train physiotherapists committed not only to disease recovery but also to health promotion and quality of life for patients, families, and caregivers.
- Develop students' pedagogical practice and deepen scientific knowledge.

CONTENT

- Course introduction, syllabus, schedule, and assessment planning
- Importance of neurofunctional rehabilitation in neurological patients
- Motor learning and application of new motor learning technologies in clinical practice
- Evidence-based physiotherapy approaches for problem-solving
- Neurological semiology applied to rehabilitation
- Neurofunctional diagnosis

- Neurological assessment, treatment planning, and prescription in neurofunctional physiotherapy
- International Classification of Functioning, Disability, and Health (ICF)
- Functional assessment scales
- Pediatric neurology physiotherapy applications
- Therapeutic techniques and resources for patients with neurological sequelae
- Proprioceptive Neuromuscular Facilitation (PNF) method and applications in neurological dysfunctions
- Bobath method application in neuropediatric and neuromuscular disorders
- Vestibular rehabilitation
- Constraint-Induced Movement Therapy (CIMT)
- Physiotherapy approaches in peripheral nervous system disorders, myopathies, and neuromuscular diseases
- Pediatric neurological disorders: cerebral palsy, Down syndrome; functional scales and specific treatment techniques

BASIC BIBLIOGRAPHY

UMPHRED, P. **Neural Rehabilitation**. São Paulo: Manole, 2004
BURKE-DOE, A.; JOBST, E. E. **Clinical Cases in Neurological Physiotherapy and Rehabilitation**. Porto Alegre: AMGH, 2015. ISBN 9788580554625
ASSIS, R. D. (ed.). **Practical Guidelines in Neurological Physiotherapy**. Barueri: Manole, 2012. ISBN 9788520444542

SUPPLEMENTARY BIBLIOGRAPHY

LUNDY-EKMAN, L. **Neuroscience: Fundamentals for Rehabilitation**. 3rd ed. Rio de Janeiro: Elsevier, 2008. ISBN 9788535226584
ROWLAND, L. P.; PEDLEY, T. A. (Eds.). **Merritt's Neurology**. Rio de Janeiro: Guanabara Koogan, 2011. ISBN 9788527718356
BRUST, J. C. M. **Neurology: Current Diagnosis and Treatment**. Rio de Janeiro: Revinter, 2011. ISBN 97885337203491

Course: NEUROLOGICAL PHYSIOTHERAPY
Workload: 80 h/classes

SYLLABUS

Physiotherapeutic techniques for patients with neurological lesions. Emphasizes postural maintenance, hygiene, locomotion, and family guidance with a focus on daily functional activities. Covers assessment, diagnosis, and treatment execution with ethical and humanistic principles.

OBJECTIVES

- Qualify professionals to treat neurological disorders using validated scientific techniques.
- Enhance patient independence and functional recovery.
- Form physiotherapists committed to both recovery and promotion of patient health and quality of life.
- Develop students' pedagogical practice and deepen scientific knowledge.

CONTENT

- Importance of neurofunctional rehabilitation in neurological patients
- Motor learning and application of new motor learning technologies in clinical practice
- Evidence-based physiotherapy problem-solving approaches
- Neurological semiology applied to rehabilitation
- Neurofunctional diagnosis
- Neurological assessment, treatment planning, and prescription in neurofunctional physiotherapy
- International Classification of Functioning, Disability, and Health (ICF)
- Functional assessment scales
- Pediatric neurology physiotherapy applications
- Therapeutic techniques and resources for patients with neurological sequelae
- Proprioceptive Neuromuscular Facilitation (PNF) method and applications
- Bobath method in neuropediatric and neuromuscular disorders
- Vestibular rehabilitation
- Constraint-Induced Movement Therapy (CIMT)
- Physiotherapy in peripheral nervous system disorders, myopathies, and neuromuscular diseases
- Pediatric neurological disorders: cerebral palsy, Down syndrome; functional scales and specific treatment techniques

BASIC BIBLIOGRAPHY

LUNDY-EKMAN, L. **Neuroscience: Fundamentals for Rehabilitation**. 3rd ed. Rio de Janeiro: Elsevier, 2008. ISBN 9788535226584
UMPHRED, P. **Neural Rehabilitation**. São Paulo: Manole, 2004
ROWLAND, L. P.; PEDLEY, T. A. (Eds.). **Merritt's Neurology**. Rio de Janeiro: Guanabara Koogan, 2011. ISBN 9788527718356

SUPPLEMENTARY BIBLIOGRAPHY

BURKE-DOE, A.; JOBST, E. E. **Clinical Cases in Neurological Physiotherapy and Rehabilitation**. Porto Alegre: AMGH, 2015. ISBN 9788580554625
ASSIS, R. D. (ed.). **Practical Guidelines in Neurological Physiotherapy**. Barueri: Manole, 2012. ISBN 9788520444542
BRUST, J. C. M. **Neurology: Current Diagnosis and Treatment**. Rio de Janeiro: Revinter, 2011. ISBN 97885337203491

Course: PREVENTIVE AND OCCUPATIONAL PHYSIOTHERAPY
Workload: 40 h/classes

SYLLABUS

This course develops theoretical knowledge and practical experience regarding the relationship between humans, the work environment, and machinery operation, emphasizing humanistic and qualitative health. It provides students with a preventive and curative perspective on work-related pathologies and prepares future professionals to understand occupational health, ethical practice, investigative methods, and intellectual competence.

OBJECTIVES

- Provide knowledge on occupational health and ergonomics and their relation to physiotherapy.
- Develop skills for ergonomic work analysis.
- Enable ergonomic guidance in different work environments, particularly workplaces.
- Equip students for research in occupational physiotherapy, ergonomics, and health promotion.
- Raise awareness about architectural barriers and optimal environmental adaptation for both healthy individuals and people with disabilities.

CONTENT

- Definition, approaches, and scope of ergonomics
- Regulatory Standard 17 (NR-17) – Ministry of Labor and Employment
- Static and dynamic anthropometry
- Use of anthropometric data
- Workplace design and occupational biomechanics
- Static and dynamic work; posture and movement analysis
- Task analysis using the RULA method
- Workspace layout and dimensioning
- Human factors in work: adaptation, motivation, fatigue, breaks
- Field research process evaluation – ergonomic assessment of a workstation
- Feedback from process evaluation and workplace exercise theory
- Practical application of workplace exercise
- Process evaluation: applying workplace exercise as a preventive ergonomic tool
- Study of work environment factors: lighting, colors, temperature, noise, and vibrations
- Architectural barriers
- Ergonomics applied to building and public space design
- Preventive physiotherapy

BASIC BIBLIOGRAPHY

BARBOSA, L. G. **Preventive Physiotherapy in Work-Related Musculoskeletal Disorders (DORTS)**. Rio de Janeiro: Guanabara Koogan, 2002
REBELATTO, J. R.; BOTOMÉ, S. P. **Physiotherapy in Brazil: Foundations for Preventive Action and Professional Perspectives**. 2nd ed. São Paulo: Manole, 2021
HALL, S. J. **Basic Biomechanics**. Rio de Janeiro: Guanabara Koogan, 2020

SUPPLEMENTARY BIBLIOGRAPHY

DELIBERATO, P. C. P. **Preventive Physiotherapy: Foundations and Applications**. 2nd ed. Barueri: Manole, 2017
IIDA, I.; GUIMARÃES, L. B. M. **Ergonomics: Design and Production**. 3rd ed. São Paulo: Blucher, 2016
SOUZA, D. A. et al. **Ergonomics of the Built Environment**. Porto Alegre: SAGAH, 2019

Course: RHEUMATOLOGICAL PHYSIOTHERAPY
Workload: 60 h/classes

SYLLABUS

Introduction to rheumatological physiotherapy, focusing on the promotion, prevention, treatment, and rehabilitation of patients with rheumatic diseases. Emphasis on diagnostic and therapeutic techniques for soft tissue disorders, collagen diseases, crystal arthropathies, seronegative arthropathies, osteometabolic, and degenerative diseases.

OBJECTIVES

- Understand basic concepts in rheumatology, clinical evaluation, and therapeutic approaches for soft tissue disorders, collagen diseases, crystal arthropathies, seronegative arthropathies, osteometabolic, and degenerative diseases.
- Develop the ability to plan treatments and make clinical decisions ethically and objectively.

CONTENT

- Classification of rheumatic diseases
- History of rheumatology and rehabilitation in rheumatology
- Rheumatological anamnesis and clinical examination
- Joint protection and energy conservation
- Thermotherapy, electrotherapy, hydrotherapy, massage therapy, and kinesiotherapy for rheumatic diseases
- Radiology and laboratory evaluation in rheumatology
- Soft tissue rheumatism: low back pain, fibromyalgia, repetitive strain injuries
- Rheumatoid arthritis and juvenile rheumatoid arthritis
- Rheumatic fever, systemic lupus erythematosus, scleroderma, dermatomyositis
- Seronegative arthropathies: ankylosing spondylitis, psoriatic arthritis, Reiter's syndrome
- Degenerative arthropathies (osteoarthritis)

BASIC BIBLIOGRAPHY

IMBODEN, J. B. Current Rheumatology Diagnosis and Treatment (Lange). 3rd ed. Porto Alegre: AMGH, 2014

SHINJO, S. K.; MOREIRA, C. (ed.). Brazilian Society of Rheumatology Book. 2nd ed. Barueri: Manole, 2020

WIBELINGER, L. M. Physiotherapy in Rheumatology. 2nd ed. Rio de Janeiro: Thieme Revinter, 2015

SUPPLEMENTARY BIBLIOGRAPHY

CARVALHO, M. A. P. et al. **Rheumatology: Diagnosis and Treatment**. 5th ed. Rio de Janeiro: Guanabara Koogan, 2019

PRADO, F. C.; VALLE, J. R. (Org.). **Therapeutic Update 2005: Practical Manual of Diagnosis and Treatment**, 22nd ed. São Paulo: Artes Médicas, 2014

MARQUES, A. P.; ASSUMPÇÃO, A.; MATSUTANI, L. A. **Fibromyalgia and Physiotherapy: Assessment and Treatment**. Barueri: Manole, 2015

Course: PUBLIC HEALTH AND HOME CARE PHYSIOTHERAPY
Workload: 40 h/classes

SYLLABUS

Concepts in public health and epidemiology applied to the Brazilian Unified Health System (SUS), emphasizing the role of physiotherapists in all levels of care and home health services. Encourages critical reflection on regional and national health demands.

OBJECTIVES

- Present public health concepts and current characteristics of the Brazilian health system.
- Demonstrate physiotherapy applications in public health and home care.
- Develop competencies for professional insertion in public health.

CONTENT

- Health-disease process conception
- Health prevention and promotion
- Sanitary reform and 20th-century public health
- History of public health in Brazil
- SUS operational norms: NOB and NOAS
- National social assistance policy and social rights
- Family Health Strategy (ESF)
- Physiotherapy integration in primary care: Family Health Support Center (NASF)
- Health care networks (RAS)
- Specialized rehabilitation centers (CER)
- Home care: multidisciplinary teams (EMAD)
- Intersectorality and social determinants of health
- Public health policies for specific populations (elderly, youth, women, drug users, etc.)

BASIC BIBLIOGRAPHY

ARCARI, J. et al. **Physiotherapy in Community Health**. Grupo A, 2021
CAMPOS, G. W. S. et al. (Orgs.). **Treaty of Collective Health**. 2nd ed. São Paulo: Hucitec, 2015
GIOVANELLA, L. et al. (Org.). **Health Policies and System in Brazil**. 2nd ed. São Paulo: Fiocruz, 2012

SUPPLEMENTARY BIBLIOGRAPHY

LEONARDO, C. M. S. et al. (Org.). **Treaty of Home Care**. Santana de Parnaíba: Manole, 2022
SOUZA, R. R.; BARROS, S. (Org.). **20 Years of SUS in São Paulo**. São Paulo: SES/SP, 2008
SOLHA, R. K. T. **Unified Health System: Components, Guidelines, and Public Policies**. São Paulo: Erica, 2014

Course: CHILD HEALTH PHYSIOTHERAPY
Workload: 80 h/classes

SYLLABUS

Study of the child's biopsychosocial development and application of physiotherapy in child health. Focus on sensorimotor development, particularly in the first year of life, early detection of disorders, and treatment of pediatric pathologies with preventive, curative, and rehabilitative approaches.

OBJECTIVES

- Develop comprehensive understanding of child development from embryonic period to puberty.
- Train students to recognize deviations from normal development and provide appropriate physiotherapeutic interventions.

CONTENT

- Prematurity: physiotherapy care in hospital and outpatient settings
- Typical sensorimotor development and assessment
- Physiotherapeutic techniques for sensorimotor stimulation
- Cerebral palsy
- Neural tube defects
- Down syndrome
- Neuromuscular diseases
- Physiotherapeutic treatment techniques

BASIC BIBLIOGRAPHY

CAMARGO, A. C. R. et al. **Pediatric Physiotherapy: From Evidence to Clinical Practice**. Rio de Janeiro: MedBook, 2019
TECKLIN, J. S. **Pediatric Physiotherapy**, 5th ed. Barueri: Manole, 2019
PRADO, C.; VALE, L. A. **Neonatal and Pediatric Physiotherapy**. Barueri: Manole, 2012

SUPPLEMENTARY BIBLIOGRAPHY

KLIEGMAN, R. M. et al. **Nelson Textbook of Pediatrics**, 21st ed. Rio de Janeiro: Manole, 2022
MEDEIROS JUNIOR, M. E. **Pediatrics in Primary Care: Diagnosis and Treatment**. São Paulo: Martinari, 2022
SOCIETY OF PEDIATRICS. **Pediatrics Treatise**, 5th ed. Barueri: Manole, 2022

Course: WOMEN'S HEALTH PHYSIOTHERAPY
Workload: 60 h/classes

SYLLABUS

This course covers theoretical and practical knowledge of evaluation and treatment methods in physiotherapy applied to gynecology and obstetrics. It emphasizes analysis, understanding, foundation, and training of procedures for diagnosis and treatment in hospital, outpatient, and home care settings.

OBJECTIVES

- Provide students with theoretical and practical knowledge in women's health, focusing on urogynecological and obstetric care.
- Train students to perform assessment/diagnosis and therapeutic planning for guidance, prevention, and treatment of women's health patients.
- Encourage critical reading and interpretation of national and international scientific literature.
- Teach the use of technical-scientific language with healthcare team members and laypersons.

CONTENT

- Concepts in women's health physiotherapy
- Pelvic anatomy and physiology
- Obstetrics: physiotherapy assessment and intervention during pregnancy, labor, postpartum, and breastfeeding
- Urogynecology: urinary system anatomy and neurophysiology; physiotherapy for urinary incontinence
- Oncology: physiotherapy in breast cancer
- Gynecological and sexual disorders
- Physiotherapy interventions during climacteric period

BASIC BIBLIOGRAPHY

BARACHO, E. **Physiotherapy Applied to Women's Health**. 6th ed. Rio de Janeiro: Guanabara Koogan, 2018
MARQUES, A. A.; SILVA, M. P. P.; AMARAL, M. T. P. **Treatise of Physiotherapy in Women's Health**. 2nd ed. Rio de Janeiro: Roca, 2018
MARCHON, R. M. **Manual of Conducts and Practices of Physiotherapy in Oncology: Gynecological Oncology**. Barueri: Manole, 2017

SUPPLEMENTARY BIBLIOGRAPHY

BEREK, J. S. (ed.); NOVAK. **Treatise of Gynecology**. 15th ed. Rio de Janeiro: Guanabara Koogan, 2014
HALBE, H. W. **Treatise of Gynecology**. 3rd ed. São Paulo: Roca, 2000
SAPATINO, H. (Org.). **Evidence-Based Humanized Birth Care: Birth Paradigms**. Manaus: Grafisa, 2014

Course: RESPIRATORY PHYSIOTHERAPY
Workload: 80 h/classes

SYLLABUS

This course focuses on the physiotherapist's knowledge and management of various respiratory pathologies. It covers techniques for outpatient care, home care, and critical care, including mechanically ventilated patients, emphasizing assessment, prevention, rehabilitation, functionality, and quality of life improvement.

OBJECTIVES

- Develop theoretical and practical skills to recognize respiratory pathologies.

- Train students to evaluate and apply physiotherapeutic techniques to restore functionality in chronic pulmonary disease patients and critically ill patients in intensive care.
- Understand interdisciplinary interventions, mechanical ventilation management (invasive and non-invasive), complementary exams, and clinical discussion.

CONTENT

- Review of respiratory anatomy and physiology
- Gas exchange (hematosis)
- Respiratory examination
- Spirometry and imaging
- Obstructive and restrictive diseases
- Pleural disorders
- Respiratory kinesiotherapy
- Assessment and ventilatory approach for obstructive pulmonary patients
- Arterial blood gas concepts
- History and principles of invasive and non-invasive mechanical ventilation
- Mechanical ventilation modes and adjustments
- Practical sessions

BASIC BIBLIOGRAPHY

AULER JUNIOR, J. O. C.; AMARAL. **Mechanical Ventilation Assistance**. São Paulo: Atheneu, 2006
KNOBEL, E. **Management of Critically Ill Patients**. 4th ed. São Paulo: Atheneu, 2016
WEST, J. B. **Respiratory Physiology**. 8th ed. Porto Alegre: Artmed, 2014

SUPPLEMENTARY BIBLIOGRAPHY

SARMENTO, G. J. V. (Org.). **Hospital Physiotherapy: Pre- and Postoperative Care**. Barueri: Manole, 2012
VALIATTI, J. L. S.; AMARAL, J. L. G.; REIS, L. F. **Mechanical Ventilation: Fundamentals and Clinical Practice**. Rio de Janeiro: Rocca, 2019
NASCIMENTO, J. **Clinical Exercise Prescription: Vision of the New Physiotherapist**. São Paulo: Fisiointensiva, 2021

Course: TRAUMATO-ORTHOPEDIC PHYSIOTHERAPY
Workload: 100 h/classes

SYLLABUS

Study of the basic musculoskeletal system, its disorders, injuries, and traumas, emphasizing diagnosis and enabling students to associate pathological processes with appropriate rehabilitation techniques.

OBJECTIVES

- Provide foundational knowledge for identifying characteristic signs and symptoms of orthopedic and traumatologic conditions.
- Develop clinical reasoning to create and implement individualized treatment plans.

CONTENT

- Introduction to orthopedics and traumatology: history, basic concepts, soft tissue injuries (physiopathology, mechanisms, surgeries)
- Fractures: general principles, mechanisms, bone physiology, classification, traction, internal/external fixation
- Fracture complications affecting rehabilitation
- Common upper limb fractures
- Lower limb fractures and physiotherapy interventions
- Upper limb musculoskeletal injuries: shoulder, elbow, wrist, hand
- Pelvic girdle injuries (hip): evaluation and rehabilitation techniques
- Pelvic tendinous/muscle injuries (bursitis, tendinitis): assessment and treatment
- Knee injuries (ligament, meniscus, femoropatellar dysfunction): assessment and treatment
- Ankle and foot injuries: evaluation and rehabilitation techniques
- Degenerative spine disorders (herniated disc, spondylolisthesis, osteoarthritis): evaluation and treatment
- Postural alterations (scoliosis, hyperlordosis, hyperkyphosis): evaluation and treatment

BASIC BIBLIOGRAPHY

BARBOSA, R. I.; SILVA, M. F. (Org.). **Traumato-Orthopedic Physiotherapy**. Porto Alegre: ArtMed, 2021
DUTTON, M. **Orthopedic Physiotherapy: Examination, Evaluation, and Intervention**. Porto Alegre: Artmed, 2nd ed., 2010
HEBERT, S., et al. **Orthopedics and Traumatology**. Porto Alegre: Artes Médicas, 2009

SUPPLEMENTARY BIBLIOGRAPHY

HOPPENFELD, S. **Orthopedic Examination: Spine and Extremities**. São Paulo: Atheneu, 2004
LEITE, N. M.; LEITE, F.; FALOPPA, F. **Orthopedic and Traumatologic Examination**. 1st ed. Porto Alegre: ArtMed, 2013
MAGEE, D. J. **Musculoskeletal Assessment**. 5th ed. Barueri: Manole, 2010

Course: FUNDAMENTALS OF PUBLIC HEALTH
Workload: 40 h/classes

SYLLABUS

Concepts and knowledge in public health and epidemiology used in the construction of the Brazilian Unified Health System (SUS). This course presents the main concepts of public health and the current characteristics of the Brazilian health system.

OBJECTIVES

- Introduce the concepts of public health and the current structure of the Brazilian health system.

CONTENT

- Health-disease process conception

- Health reform
- History of public health in Brazil
- Public health in the 20th century
- Brazilian Unified Health System (SUS)
- Operational Norm of Health Assistance (NOAS)
- Citizenship, popular participation, and health
- Ottawa Charter
- Primary health care – Family Health Program (PSF)
- Overview of SUS programs

BASIC BIBLIOGRAPHY

SECCHI, L. **Public Policy Analysis: Problem Diagnosis and Solution Recommendations**. São Paulo: Cengage Learning, 2016
MENICUCCI, T.; GONTIJO, J. G. L. (Org.). **Management and Public Policies in the Contemporary Scenario: National and International Trends**. Rio de Janeiro: Fiocruz, 2016
ROCHA, A. A. **Histories of Sanitation**. São Paulo: Blucher, 2016

SUPPLEMENTARY BIBLIOGRAPHY

WALDEMAR, F. S. et al. **SIC Epidemiology**. São Paulo: Medcel, 2017
FONTAO, P. C. N. (Org.) et al. **Health and Spirituality: Spirituality in Professional Health Training**. São Paulo: Martinari, 2017
CAMPOS, G. W. S. et al. (Orgs.). **Treatise of Collective Health**. 2nd ed. São Paulo: Hucitec, 2015

Course: HEALTH MANAGEMENT
Workload: 40 h/classes

SYLLABUS

Focuses on management processes in health services: principles, guidelines, and basic tools. Covers specific techniques for planning, organizing, and administrating physiotherapy services across different areas and settings.

OBJECTIVES

- Introduce concepts of health management and physiotherapy services management.
- Discuss national and international accreditation processes, administrative theories and practices, and human resource management.

CONTENT

- Presentation of the teaching plan
- Division and organization of tasks
- Health management: concepts and applicability
- Performance evaluation
- Service management and outsourcing
- Strategic administration
- Cost management and strategic pricing

- Health audit tools
- Health information technology
- Conflict management
- Practical innovation tools: definition and inclusion in health services
- Project/clinic construction evaluation
- Organization of clinic construction, integrating management, IT, conflict management, innovation tools, and performance evaluation

BASIC BIBLIOGRAPHY

REZENDE, D. A. **Planning Information Systems and Computing**. 5th ed. São Paulo: Atlas, 2016
MARQUES, S. M. F. **Medical Accounts Auditing Manual**. Rio de Janeiro: MedBook, 2015
CHIAVENATO, I**. Introduction to Human Resource Management**. 5th ed. São Paulo: Atlas, 2022

SUPPLEMENTARY BIBLIOGRAPHY

VECINA NETO, G.; MALIK, A. M. **Health Management**. Rio de Janeiro: Guanabara Koogan, 2016
BARSANO, P. R. et al. **Biosafety: Fundamental Actions for Health Promotion**. 2nd ed. São Paulo: Erica, 2020
BURMESTER, H. et al. (Coord.). **Human Resource Management in Health**. São Paulo: Saraiva, 2019

Course: HISTORY AND FUNDAMENTALS OF PHYSIOTHERAPY
Workload: 60 h/classes

SYLLABUS

Covers the history of physiotherapy in Brazil and worldwide, areas of physiotherapist practice, professional profile, legal foundations of the profession, and different service levels with a focus on administration related to promotion, prevention, recovery, and rehabilitation. Emphasizes ethical and bioethical foundations in the contemporary socio-historical context.

OBJECTIVES

- Justify the emergence of physiotherapy and characterize legal aspects for professional recognition.
- Demonstrate the development, areas, and current practice of physiotherapy.
- Present laws, regulatory bodies, and professional oversight.
- Show the relationship of physiotherapy with health, education, research, and administration.
- Inform students about the physiotherapy labor market.

CONTENT

- History and evolution of physiotherapy in Brazil and worldwide
- Legal aspects and professional regulation of physiotherapy
- Physiotherapist training
- Interviews with external physiotherapists
- Physiotherapy Code of Ethics
- Ethical problematization exercises
- Introduction to health and physiotherapist role in health teams
- Specialties recognized by COFFITO
- CPR practice

BASIC BIBLIOGRAPHY

GAVA, M. V. **Physiotherapy: History, Reflections, and Perspectives**. São Bernardo do Campo: UMESP, 2004
CARVALHO, V. C. P. et al. (Org.). **Fundamentals of Physiotherapy**. Rio de Janeiro: MedBook, 2014
PINHEIRO, G. **Introduction to Physiotherapy**. Rio de Janeiro: Guanabara Koogan, 2009

SUPPLEMENTARY BIBLIOGRAPHY

LIANZA, S. (Coord.-Editor). **Rehabilitation Medicine**. Rio de Janeiro: Guanabara Koogan, 2011
BRODY, L. T.; HALL, C. M. **Therapeutic Exercise**. 4th ed. Rio de Janeiro: Guanabara Koogan, 2019
O'SULLIVAN, S. B.; SCHIMITZ, T. J. **Physiotherapy: Evaluation and Treatment**. 5th ed. Barueri: Manole, 2010

Course: BRAZILIAN SIGN LANGUAGE (LIBRAS)
Workload: 40 h/classes

SYLLABUS

History and context of education for the deaf in Brazil, legislation and rights of deaf individuals, deaf culture, and social interaction forms. Brazilian Sign Language (LIBRAS) and its sociological, pedagogical, linguistic, and technical foundations, as well as applications in different social spaces, are addressed as part of human and professional formation. The course emphasizes the expressiveness of signs used by the deaf community, their relevance today, and practical applications in the labor market under inclusion policies.

OBJECTIVES

- Introduce theoretical and practical knowledge of Brazilian Sign Language as a gestural-visual communication system used by the deaf community in Brazil.
- Understand deaf communication methods.
- Identify deaf culture and specific characteristics.
- Contextualize historically deaf education in Brazil.
- Study and discuss current legislation concerning LIBRAS and the rights of deaf individuals.

CONTENT

Unit 1 – Brief History of the Deaf
1.1 Milan Congress
1.2 Deafness and hearing impairment
1.3 Myths about sign language

Unit 2 – Five Parameters of LIBRAS
2.1 Terminology of the deaf
2.2 Causes of deafness
2.3 Prenatal care
2.4 Diagnostic exams for deafness
2.5 Cochlear implants
2.6 Alphabet and numbers

2.7 Greeting practices
2.8 Family signs
2.9 Animals
2.10 Colors
2.11 Location

BASIC REFERENCES

BOTELHO, Paula. **Language and Literacy in Deaf Education – Ideology and Pedagogical Practices**. Belo Horizonte: Autêntica, 2015
MOURA, Maria C.; CAMPOS, Sandra R. L.; VERGAMINI, Sabine A. A. **Education for the Deaf: Practices and Perspectives II**. São Paulo: Santos, 2011
QUADROS, Ronice M. **Education of the Deaf: Language Acquisition**. Porto Alegre: Artmed, 2008

SUPPLEMENTARY REFERENCES

BRASIL. Decree No. 5,626, December 22, 2005, regulating Law No. 10,436, April 24, 2002, regarding Brazilian Sign Language – LIBRAS, and Article 18 of Law No. 10,098, December 19, 2000. Official Gazette, Dec 23, 2005.
BRASIL. **The Translator and Interpreter of Brazilian Sign Language and Portuguese**. Brasília: MEC/SEESP, 2004. Available at: [link]
ESTELITA, Mariangela. **ELiS – Brazilian Writing System for Sign Languages**. Porto Alegre: Penso, 2015.
Law No. 10,436/2002. Available at: [link]

Course: PORTUGUESE LANGUAGE
Workload: 40 h/classes

SYLLABUS

Guidance on the use of grammar as a decisive tool for professional performance. Study of Portuguese with focus on comprehension, interpretation, grammatical analysis, and text production.

OBJECTIVES

- Improve reading, writing, and speaking skills in Portuguese.
- Develop reading comprehension, grammar knowledge, and text production.
- Analyze and interpret diverse texts.
- Develop skills in organizing and structuring ideas to produce coherent texts.
- Acquire specific linguistic knowledge for essay and argumentative writing.
- Apply the new rules of the Portuguese Language Orthographic Agreement.
- Develop general competencies: attention to health, decision-making, communication, and lifelong learning.
- Skills: observation, association, reflection, decision-making, memorization, reasoning, concentration.
- Attitudes: interest, initiative, commitment, discipline, lifelong learning.

CONTENT

- Reading comprehension and text interpretation

- New Portuguese Orthographic Agreement
- Grammar: review of word classes, verbs, verbal agreement, accents, punctuation, orthography, crasis
- Writing: essay/dissertation focus, text summarization and synthesis
- Essay: structure, coherence, and cohesion

BASIC REFERENCES

GARCIA, Othon Moacyr. **Communication in Modern Prose: Learn to Write by Learning to Think**. 27th ed. Rio de Janeiro: FGV, 2015
MEDEIROS, J. B. **Instrumental Portuguese**. 10th ed. São Paulo: Atlas, 2013
SIQUEIRA, Wagner Garcia. **The Challenge of the Project "I Think, Therefore I Write"**. São Paulo: Expressão & Arte, 2014

SUPPLEMENTARY REFERENCES

CEREJA, William Roberto; MAGALHÃES, Thereza Cochar. **Grammar: Text, Reflections, and Use**. 3rd ed. São Paulo: Atual, 2009
COMPEDELLI, Samira Yousseff; SOUZA, Jésus Barbosa. **Portuguese: Literature, Text Production, and Grammar**. 3rd ed. São Paulo: Saraiva, 2000
MEDEIROS, João Bosco. **Instrumental Portuguese: Techniques for Preparing Academic Papers (TCC)**. 11th ed. São Paulo: Atlas, 2021

Course: ENVIRONMENT AND HEALTH
Workload: 40 h/classes

SYLLABUS

Development of educational strategies and opportunities linking health and environmental learning. Emphasis on professional practice in education, promoting autonomy in health management and social inclusion, focusing on improving quality of life, health promotion, and disease prevention.

OBJECTIVES

- Highlight the educational role of health professionals.
- Provide tools for implementing health education actions at individual and community levels.
- Identify appropriate pedagogical methodologies for health education.
- Provide tools for disease prevention, health promotion, and quality of life improvement.

CONTENT

- Health-disease process
- Activity: Film analysis
- Citizenship, human rights, social participation, and social exclusion
- Education models
- Environmental education
- Quality of life and environmental implications
- Sustainable development: Sustainable Development Goals
- Climate change and mitigation strategies
- Kyoto Protocol, Paris Agreement

- Agenda 2030
- Conscious water and energy consumption
- Waste management

BASIC REFERENCES

REIS, L. B.; FADIGAS, E. A. F. A.; CARVALHO, C. E. **Energy, Natural Resources, and Sustainable Development Practice**. 3rd ed. Barueri: Manole, 2019
REIS, A. C. et al. **Ecology and Environmental Analysis**. Porto Alegre: SAGAH, 2021
BARSANO, P. R.; BARBOSA, R. P.; IBRAHIN, F. D. **Environmental Legislation**. São Paulo: Erica, 2019

SUPPLEMENTARY REFERENCES

FIORILLO, C. A. P. **Course on Brazilian Environmental Law**. 21st ed. São Paulo: Saraiva Jur, 2021
MAGALHÃES, M. F. **Strategies for Sustainable Development: ESG + P (Environment, Society, Governance, People)**. 2nd ed. São Paulo: Atlas, 2023
OLIVEIRA, S. V. W. B.; LEONETI, A. B.; CEZARINO, L. O. (org.). **Sustainability: Principles and Strategies**. Barueri: Manole, 2019

Course: RESEARCH METHODOLOGY
Workload: 40 h/classes

SYLLABUS

Scientific method and phases of scientific work development, providing students with knowledge for scientific investigation.

OBJECTIVES

- Apply theoretical and methodological frameworks to conduct scientific research and produce knowledge in physiotherapy.

CONTENT

- Quantitative and qualitative research: types of studies and data collection instruments
- Structuring a research project
- Literature review
- Preparation of a preliminary project: objectives, justification, and methodology
- Data collection and tabulation
- Organization and analysis of results

BASIC REFERENCES

TEIXEIRA, Elizabeth. **The Three Methodologies: Academic, Scientific, and Research**. Petrópolis: Vozes, 2005
GONÇALVES, Hortência de Abreu. **Manual of Scientific Research Methodology**. 2nd ed. São Paulo: Avercamp, 2014
VIEIRA, Sonia; HOSSNE, William Saad. **Scientific Methodology for Health Sciences**. 2nd ed. Rio de Janeiro: Elsevier, 2015

SUPPLEMENTARY REFERENCES

MINAYO, Maria Cecília de Souza. **The Challenge of Knowledge: Qualitative Health Research**. 9th ed. Rio de Janeiro: Hucitec, 2008
SALOMON, Délcio Vieira. **How to Write a Monograph**. 10th ed. São Paulo: Martins Fontes, 2001
MATIAS-PEREIRA, José. **Manual of Scientific Research Methodology**. 4th ed. São Paulo: Atlas, 2016

Course: RESEARCH METHODOLOGY FOR FINAL PROJECT DEVELOPMENT
Workload: 40 h/classes

SYLLABUS

Scientific method and presentation of the phases of scientific work development, providing students with the tools for scientific investigation aimed at initiating their Undergraduate Final Project (TCC).

OBJECTIVES

- Use research in physiotherapy as an instrument for practical application and continuous construction of scientific knowledge and professional practice.
- Revisit the types of research most suitable for TCC development.
- Initiate the structure of the TCC and begin data collection.

CONTENT

- Literature review (types)
- Research types: quantitative and qualitative, research instruments and data collection methods
- Definition and delimitation of the research topic
- Structuring a research project (computer lab)
- Research using digital platforms
- Bibliographic survey
- Formulation of problem statement and hypothesis
- Correction of problem statement and hypothesis
- Preparation of a preliminary project (objectives)
- Preparation of a preliminary project (justification)
- Correction of objectives and justification
- Preparation of a preliminary project (methodology)
- Assembly of the project presentation
- Project presentation

BASIC REFERENCES

TEIXEIRA, Elizabeth. **The Three Methodologies: Academic, Scientific, and Research**. Petrópolis: Vozes, 2005
GONÇALVES, Hortência de Abreu. **Manual of Scientific Research Methodology**. 2nd ed. São Paulo: Avercamp, 2014
VIEIRA, Sonia; HOSSNE, William Saad. **Scientific Methodology for the Health Area**. 2nd ed. Rio de Janeiro: Elsevier, 2015

SUPPLEMENTARY REFERENCES

MINAYO, Maria Cecília de Souza. **The Challenge of Knowledge: Qualitative Research in Health**. 9th ed. Rio de Janeiro: Hucitec, 2008
SALOMON, Délcio Vieira. **How to Write a Monograph**. 10th ed. São Paulo: Martins Fontes, 2001
MATIAS-PEREIRA, José. **Manual of Scientific Research Methodology**. 4th ed. rev. and updated. São Paulo: Atlas, 2016

Course: RESEARCH METHODOLOGY FOR FINAL PROJECT COMPLETION
Workload: 40 h/classes

SYLLABUS

Completion of scientific knowledge production in physiotherapy through the Undergraduate Final Project (TCC).

OBJECTIVES

- Use research in physiotherapy as an instrument for practical application and continuous construction of science and professional practice.
- Revisit research types suitable for TCC development, continuing the TCC structure, completing data collection, composing results, discussion, and conclusion.
- Equip students for TCC construction.
- Develop students as scientific researchers in physiotherapy.

CONTENT

- Review of topics to be addressed
- Research sources
- Databases for reference completion
- Quantitative and qualitative research: types and instruments for data collection
- Structuring the TCC:
- Review of theoretical framework and result analysis
- Preliminary TCC presentation
- Data tabulation
- Description of research results
- Organization of discussion of results
- Description of final considerations and study conclusion
- Construction and structuring of the abstract
- Verification of references and citations

BASIC REFERENCES

GIL, A. C. **How to Prepare Research Projects**. 7th ed. São Paulo: Atlas, 2022
GONÇALVES, H. A. **Manual of Scientific Research Methodology**. 2nd ed. São Paulo: Avercamp, 2014
MARCONI, M. A.; LAKATOS, E. M. **Scientific Methodology: Science and Scientific Knowledge, Scientific Methods, Theory, Hypotheses, and Variables, Legal Methodology**. 8th ed. São Paulo: Atlas, 2022

SUPPLEMENTARY REFERENCES

RAMIRES, J. C. L. **Geography and Qualitative Research in the Trails of Investigation**. Uberlândia: Assis, 2009
AQUINO, I. S. **How to Write Scientific Articles: Clearly and Without Fear of ABNT Rules**. 8th ed. São Paulo: Saraiva, 2012
MARCONI, M. A.; LAKATOS, E. M. **Methodology of Scientific Work**. 9th ed. São Paulo: Atlas, 2021

Course: MICROBIOLOGY AND IMMUNOLOGY
Workload: 60 h/classes

SYLLABUS

Study of the cytological and morphological characteristics of various microorganisms. Study of the pathogenicity of the main etiological agents relevant to physiotherapy. Basic knowledge of immunology and immune responses.

OBJECTIVES
Topics in microbiology and immunology are covered to contribute to the general training of the professional, enabling them to:

- Understand the basic principles for identification and classification of microorganisms;
- Consider the etiology of microbial and immunological diseases;
- Understand the pathological processes involved, especially in physiotherapy.

General competencies: health attention; decision-making; communication; continuing education. Knowledge: identification of microorganisms and body defense systems. Skills: observation; association; reflection; decision-making; comprehension. Attitudes: interest; discipline; commitment; respect; responsibility; ethics; continuing education.

CONTENT

- Introduction to Microbiology: structure, function, and classification of microorganisms
- Basics of Bacteriology
- Bacterial infections and their relevance to human health
- Basics of Mycology
- Fungal infections and their relevance to human health
- Basics of Virology
- Viral infections and their relevance to human health
- Introduction to the Immune System
- Cells, tissues, and organs of the Immune System
- Inflammation
- Antibodies
- Hypersensitivity reactions (allergies)
- Autoimmunity
- Immunodeficiencies
- Immunotherapy: cell therapy, immunoglobulins, and vaccines

BASIC REFERENCES
ABBAS, Abul K.; LICHTMAN, Andrew H.; OILLAI, Shiv. **Cellular and Molecular Immunology**. 8th ed.

Rio de Janeiro: Elsevier, 2015.
PELCZAR Junior, Michael J.; CHAN, E. C. S.; KRIEG, Noel R. **Microbiology: Concepts and Applications**. 2nd ed. São Paulo: Pearson, 1997.
TRABULSI, Luiz Richard; ALTERTHUM, Flávio. **Microbiology**. 6th ed. São Paulo: Atheneu, 2015.

SUPPLEMENTARY REFERENCES

MURRAY, P.R.; ROSENTHAL, K.S.; MICHAEL, A.P. **Medical Microbiology**. 8th ed. Rio de Janeiro: Guanabara Koogan, 2017.
ROITT, Ivan M.; Delves, Peter J. Roitt – **Fundamentals of Immunology**. 13th ed. Rio de Janeiro: Guanabara Koogan, 2018.
TORTORA, G. J.; FUNKE, B. R.; CASE, C. L. **Microbiology**. 12th ed. Porto Alegre: Artmed, 2017.

Course: NEUROANATOMOPHYSIOLOGY
Workload: 60 h/classes

SYLLABUS

General organization of the nervous system (phylogeny, ontogeny, morphophysiology), as well as neuroplasticity mechanisms; basic principles for current neurological physiotherapy practice.

OBJECTIVES

- Enable students to understand adult neurological pathologies and identify their signs and symptoms.
- Provide knowledge of neurological assessment techniques and their interaction with physiotherapeutic objectives and treatment.
- Promote the independence of patients with neurological impairments.
- Develop physiotherapists committed to disease recovery, health promotion, and quality of life for patients, families, and caregivers.
- Encourage students to deepen scientific knowledge and pedagogical skills.

CONTENT

- Nervous system embryology – phylogeny
- Telencephalon – macroscopic aspects
- Microscopic aspects – location and function of telencephalic structures
- Basal ganglia – location, mechanism, clinical correlation
- Motor cortex – location, structures, function, mechanism
- Brain vascularization – clinical correlation; sympathetic and parasympathetic nervous systems
- Diencephalon – macroscopic aspects
- Microscopic aspects – location, function, clinical correlation
- Spinal cord – macroscopic aspects, structures, function
- Spinal tracts – ascending and descending; clinical correlation
- Brainstem – structures, location, and function
- Medulla – clinical correlations
- Pons – macro and microscopic aspects
- Cerebellum – structure and location

- Nervous tissue and synapses
- Clinical correlations with central nervous system structures

BASIC REFERENCES

KISNER, C.; COLBY, L. A. **Therapeutic Exercise: Foundations and Techniques**. 7th ed. São Paulo: Manole, 2021.
O'SULLIVAN, S. **Physical Therapy: Assessment and Treatment**. 5th ed. São Paulo: Manole, 2010.
UMPHRED, P. **Neurological Rehabilitation**. 4th ed. São Paulo: Manole, 2004.

SUPPLEMENTARY REFERENCES

LEVY, J.A.; OLIVEIRA, A.S.B. **Rehabilitation in Neurological Diseases: Practical Therapeutic Guide**. São Paulo: Atheneu, 2003.
KOPCZYNSKI, M.C.; WAKSMAN, R.D.; FARAH, O.G.D. **Neurological Physiotherapy: Specialization Manuals**. 1st ed. São Paulo: Manole, 2012.
LIANZA. **Rehabilitation Medicine**. 4th ed. Rio de Janeiro: Guanabara Koogan, 2011.

Course: GENERAL PATHOLOGY
Workload: 60 h/classes

SYLLABUS

Study of pathological processes and general lesions occurring in cells and tissues, common to different diseases. Study of pathological alterations, degenerative processes, inflammatory processes, healing, and regeneration.

OBJECTIVES

- Promote understanding of general pathological processes for recognizing the main dysfunctions of organs and systems.
- General competencies: attention to health; decision-making; communication; continuing education.
- Knowledge: recognition of pathological mechanisms.
- Skills: observation; association; reflection; decision-making; comprehension.
- Attitudes: interest; discipline; commitment; respect; responsibility; ethics; continuing education.

CONTENT

- Introduction to Pathology: History, Phases, Concepts of health and disease
- Concept of lesion, pathogenic agents, and diagnostic methods
- Cellular injury, cellular adaptations, and reversible lesions
- Irreversible lesions
- Cell death: Necrosis – causes, basic morphological changes, and types
- Apoptosis
- Cellular differentiation
- Endogenous and exogenous pigments
- Inflammation: concept, evolution, dynamics, and classification
- Repair and healing: Healing, resolution, repair, regeneration, and organization

- Healing and repair: Labile, stable, and permanent cells; primary and secondary intention healing
- Healing and repair: Factors influencing slow/fast, excessive/deficient healing

BASIC REFERENCES

BRASILEIRO FILHO, G. et al. **Bogliolo – General Pathology**. 10th ed. Rio de Janeiro: Guanabara Koogan, 2021.
FRANCO, M. et al. **Pathology: General Processes**. 6th ed. São Paulo: Atheneu, 2015.
HANSEL, D.E.; DINTZIS, R.Z. **Fundamentals of Rubin: Pathology**. Rio de Janeiro: Guanabara Koogan, 2007.

SUPPLEMENTARY REFERENCES

MITCHELL, R. **Fundamentals of Pathology: Robbins & Cotran**. 9th ed. Rio de Janeiro: GEN Guanabara Koogan, 2017.
MONTENEGRO, M.R.; FRANCO, M. **Pathology: General Processes**. 4th ed. São Paulo: Atheneu, 2006.
KUMAR, V.; ABBAS, A.; ASTER, J.C. **Robbins Basic Pathology**. 10th ed. Rio de Janeiro: Elsevier, 2018.

Course: PROSTHESIS AND ORTHOSIS
Workload: 40 h/classes

SYLLABUS

The course develops physiotherapy knowledge through the study of amputations, their causes and classifications, as well as physiotherapeutic practice including assessment and treatment, in a comprehensive context. It also covers indications and types of prostheses and orthoses, aiming to enable the student to work at all levels of health care: primary, secondary, and tertiary, regarding amputee or orthosis-requiring patients. Focus is placed on clinical decision-making, functional diagnosis, and execution of appropriate physiotherapeutic procedures.

OBJECTIVES

- Provide knowledge about causes and levels of amputation.
- Present types of prostheses indicated for each case.
- Guide evaluation and treatment of amputee patients in pre- and post-prosthesis phases.
- Study orthoses: function, structure, and indications.
- Encourage problem-solving regarding prosthetic and orthotic use and promote creativity in patient adaptation.

CONTENT

- Definition and history of orthoses; indications
- Upper limb orthoses
- Lower limb orthoses
- Trunk orthoses
- Special orthoses (insoles and footwear) and initial fitting procedures
- Causes and levels of amputation
- Pre- and post-operative care and surgical complications

- Physiotherapy post-operatively and evaluation of amputee patients
- Definition and history of prostheses
- Types of lower limb prostheses
- Types of upper limb prostheses
- Indication and prescription of prostheses
- Care of prostheses; physiotherapy during pre- and post-prosthesis phases
- Gait of the amputee patient

BASIC REFERENCES

CARVALHO, J.A. **Lower Limb Amputations: In Pursuit of Full Rehabilitation**. 3rd ed. Barueri: Manole, 2021.
CARVALHO, J.A. **Orthoses: A Complementary Therapeutic Resource**. 2nd ed. Barueri: Manole, 2013.
VASCONCELOS, G.S. **Orthoses and Prostheses**. Porto Alegre: SAGAH, 2020.

SUPPLEMENTARY REFERENCES

LIANZA, Sergio (Coordinator-Editor). **Rehabilitation Medicine**. Rio de Janeiro: Guanabara Koogan, 2011.
SOUZA, A.M.C.; FERRARETTO, I. **Cerebral Palsy: Practical Aspects**. São Paulo: Frôntis Editorial, 1998.
O'SULLIVAN, S.B.; SCHMITZ, T.J. **Physical Therapy: Assessment and Treatment**. 4th ed. São Paulo: Manole, 2010.

Course: PSYCHOLOGY APPLIED TO THE CARE DIMENSION
Workload: 40 h/classes

SYLLABUS

Basic principles of formation, development, and psychodynamics of emotional mechanisms to provide a critical and comprehensive view of biopsychosocial and spiritual processes of human behavior and their impact on interpersonal health relationships.

OBJECTIVES

- Enable students to acquire knowledge and skills through understanding the psychodynamics of human behavior, promoting effective interpersonal relationships in health care.
- Identify the patient's emotional state while respecting individuality, pain threshold, and suffering.
- Develop attitudes favoring humanized interactions with patients and the multidisciplinary team.

CONTENT

- Communication in Health: types and forms
- Personality: theories, concepts, and different approaches
- Relationship of health professionals with patients, families, and the team: transference and countertransference – psychoanalytic approach
- Emotional Intelligence in Clinical Practice: skills for health professionals
- Psychosomatics: foundations of biopsychosocial dynamics
- Human development stages
- Main mental disorders: anxiety, depression, stress, and burnout among health professionals
- The essence and significance of caring and touching in health; the body as language: psychological effects and reactions to disease

- Patient responses to illness and hospitalization
- Behavioral theory and motivation study
- Thanatology: grief and loss; death and health professionals
- Multi- and interdisciplinary teams: functioning and perspectives
- Humanization in health; National Policy of Humanization and Physiotherapy

BASIC REFERENCES

FADIMAN, J. **Personality and Personal Growth**. 5th ed. Porto Alegre: ArtMed, 2004.
FREUD, S. **Love, Sexuality, Femininity**. São Paulo: Autêntica, 2018.
WEITEN, W**. Introduction to Psychology: Themes and Variations**. 3rd ed. São Paulo: Cengage Learning, 2018.

SUPPLEMENTARY REFERENCES

ISMAEL, S.M.C. **Hospital Psychology: Articulating Concepts with Clinical Practice**. Porto Alegre: Atheneu, 2013.
COLLIN, C. et al. (Collaborators). **The Book of Psychology**. São Paulo: Globo, 2012.
MELLO, F. **Psychosomatics Today**. Porto Alegre: ArtMed, 1992.

Course: MANUAL THERAPEUTIC RESOURCES
Workload: 60 h/classes

SYLLABUS

This course addresses the use of hands for understanding touch and developing manual skills as a therapeutic resource used in the prevention and treatment of diseases.

OBJECTIVES

- Develop the competencies and skills necessary for the practice of manual therapeutic resources, addressing ethical and scientific aspects.
- Prepare students for therapeutic situations in various settings, including rehabilitation centers, clinics, offices, SPAs, hospitals, and/or home care.
- Develop and train manual skills for the techniques taught.
- Reflect on the ethical and scientific aspects of manual therapeutic resources.

CONTENT

- Introduction to Manual Therapeutic Resources
- Self-care and prerequisites for the manual therapist
- Bodywork for physiotherapists: warm-up, stretching, and strengthening for the hands; techniques for positioning and preparation
- Shantala: concept, effects, indications, and maneuvers
- Classic Massage: principles, components, physiological effects, indications, contraindications, iatrogenesis, and maneuvers
- Sculpting Classic Massage: abdomen
- Classic Massage: lower limbs, upper limbs, trunk, and abdomen
- Fascia and Pompages: concept, technique, physiological effects, indications, and contraindications
- Pompages: general and specific techniques

- Manual Lymphatic Drainage: history, procedures, maneuvers, physiological effects, indications, contraindications
- Manual Lymphatic Drainage: topographic anatomy of lymph node groups and technique for lower limbs, upper limbs, trunk, and face
- Introduction to Global Postural Re-education (GPR): concept, technique, physiological effects, indications, and contraindications

BASIC REFERENCES

BRITTO, R.R.; BRANT, T.C.S.; PARREIRA, V.F. **Manual and Instrumental Resources in Respiratory Physiotherapy**. 2nd ed., rev. and expanded. Barueri, SP: Manole, 2014.
BORGES, F.S. **Dermato-functional: Therapeutic Modalities in Aesthetic Dysfunctions**. 2nd ed., rev. and expanded. São Paulo, SP: Phorte, 2012.
ALBUQUERQUE, R.S. **Reflexology: For Those Who Care and Want to Be Cared For**. São Paulo, SP: Martinari, 2004.

SUPPLEMENTARY REFERENCES

GUIRRO, E.C.O.; GUIRRO, R.R.J. **Dermato-functional Physiotherapy: Foundations, Resources, and Pathologies**. 3rd ed. São Paulo, SP: Manole, 2004.
MANSOUR, N.R. et al. **Manual Therapies**. Porto Alegre: SAGAH, 2019.
BICKLEY, L.S.; SZILAGYI, P.G. **Bates: Physical Examination and History Taking**. 13th ed. Rio de Janeiro, RJ: Guanabara Koogan, 2022.

Course: SOCIOLOGY
Workload: 40 h/classes

SYLLABUS

Understanding how society influences the life of the individual and promotes their development. Study of the main issues affecting contemporary societies and organizations. Approach to the main problems affecting humans in modern societies. Relation between knowledge, evolution, human growth, and health.

OBJECTIVES

- Enable students, through sociology, to develop knowledge and critical insight into the relationship between the individual and society in the contemporary world, providing values for professional practice.
- Study social phenomena and how they manifest in human societies.
- Understand interpersonal relationships in health care, allowing for multidisciplinary work.
- Study the precursors of sociology and the importance of their contributions today (Émile Durkheim, Max Weber, Karl Marx, among others).
- Understand the sociological dimension in health-disease processes.

CONTENT

- Sociology: historical and conceptual aspects in the 18th, 19th centuries, and today
- Main precursors of sociology: historical and conceptual aspects (Auguste Comte, Herbert Spencer, Émile Durkheim, Max Weber, Karl Marx, and others)
- Sociology study areas: anthropological, psychological, legal, economic, political, health-related, and others

- Formation of social identity and citizenship
- Conceptual elements of sociology: social roles and systems; social interaction; social processes; social status; cooperation, competition, and conflicts; social exclusion, stratification, poverty, and inequalities; stereotypes, alienation, and others
- Sociology of work: work in modern society and in Brazil
- Sexual and moral harassment at work
- Sociological dimensions of health and caregiving
- Social vulnerability and types of violence
- Globalization and health: the impact of media on social life
- Collective consciousness, mechanical and organic solidarity
- Inequalities and social movements in Brazil
- Social degradation in family, education, economy, and politics
- Social representations of health and disease
- Sociology and Physiotherapy

BASIC REFERENCES

GIL, A.C. **General Sociology**. São Paulo, SP: Atlas, 2011.
LARAIA, R.B. **Culture: An Anthropological Concept**. 18th ed. Rio de Janeiro: Jorge Zahar, 2009.
TOMAZI, N.D. (Coord.). **Introduction to Sociology**. São Paulo: Atual, 2007.

SUPPLEMENTARY REFERENCES

ALBORNOZ, Suzana. **What is Work**. 6th ed. São Paulo: Brasiliense, 2008. (Col. Primeiros Passos).
DIAS, Reinaldo. **Fundamentals of General Sociology**. 5th ed. Campinas: Alínea, 2011.
GOMES, Mércio Pereira. **Anthropology**. 2nd ed. São Paulo: Contexto, 2011.
LAKATOS, Eva M.; MARCONI, Mariana de A. **General Sociology**. 8th ed. São Paulo: Atlas, 2019.

3.6 Methodologies

The methodology for developing course activities considers the student as the subject of the teaching-learning process, developing, whenever possible, active methodologies, seeking the contextualization of theoretical content through case studies of situations within the national and, especially, regional context, focusing on observational capacity, and encouraging discussions in small groups and with the entire class. Emphasis is placed on theoretical-practical studies, enabling greater immersion in the content and preparing the student's professional independence. The approach starts from a vision of educating for citizenship with full participation in society.

The program values the principles of institutional autonomy, flexibility, study/work integration, and curricular plurality. The methodology in the teaching-learning process stimulates the student to reflect on social reality, developing learning to learn, learning to be, learning to do, learning to live together, and learning to know—thus constituting essential attributes for the training of the Physiotherapy professional.

Pedagogical strategies have been established that aim at learning and allow for the parallel recovery of non-assimilated content.

This proposal is believed to meet the mission of FASM, training competent professionals for the development of scientific, technological, artistic, cultural, political, and social activities in various areas of knowledge, thus fulfilling the purpose of:

- Stimulating cultural creation and the development of a scientific spirit and reflective thinking;
- Providing conditions for the improvement, updating, and specialization of qualified professionals;
- Training competent professionals in their respective areas of activity;
- Promoting the development of critical and participatory thinking;
- Encouraging the development and promotion of all forms of knowledge through teaching, research, and extension;
- Promoting the dissemination of cultural, scientific, and technical knowledge that constitutes the heritage of humanity and communicating knowledge through teaching, publications, or other forms of communication.

In this sense, beyond theoretical-practical knowledge, the aim is to add professional experience through content, which will include:

- **Dialogical classes** during synchronous moments – allowing for the exchange and contribution of information by students and the professor, involving active positioning and participation by all in the classroom;
- **Expository classes** during synchronous moments – allowing the educator to present content, ideas, and information;
- **Case Studies** – activities that require interpretation and assimilation, developing the ability to draw analogies with real situations;
- **Directed Study** – investigative activity on cases, situations, and issues aimed at understanding general or specific problems;
- **Development of virtual seminars** – allowing students to present readings and analyses prepared individually or in groups.

In this context, privileging good practices that stimulate student action in a theory-practice relationship and ensuring continuous monitoring of activities, methodological accessibility, and student autonomy, Santa Marcelina College adopts various teaching and learning methodologies supported by the tools this modality allows, such as an interactive and accessible Virtual Learning Environment, a digital library with uninterrupted access (24/7), professors and tutors, and specific didactic materials.

Consequently, the methodology employed meets content development, learning strategies, continuous monitoring of activities, methodological accessibility, and student autonomy. It aligns with pedagogical practices that stimulate student action in a theory-practice relationship, being clearly innovative and based on resources that provide differentiated learning within the field.

Furthermore, the practice of innovative methodologies is present in students' daily routine. "Learning by doing" is considered a pillar of professional training, enabled by the integration of patients/clients into practical classes and students' experience in various professional fields, including specialized care practice in the institution's laboratories.

In addition, the possibility of developing interdisciplinary and interprofessional actions favors student participation with the academic community and the surrounding community where the institution is located. The perception of teamwork and respect for the multidisciplinary team is highly valued by the institution, and social participation aligns with its mission and values.

Practical classes are understood as practical activities developed within curricular subjects, in line with the theoretical foundation received throughout the program. These activities are included in the curriculum and recorded in each professor's teaching plans, as well as in specific reports. It is worth noting that practical activities are part of the program from the first year, permeating the entire Physiotherapist's training in an integrated and/or interdisciplinary manner.

The purpose of practical classes is to articulate knowledge, practical know-how, and interpersonal skills, bringing students closer to social reality so that they can learn to learn by connecting classroom theory with practical experiences.

The practical activities developed in the Physiotherapy Program include technical visits, seminar organization, laboratory practices, social actions, and integrative projects, carried out both within and outside the institution, always accompanied and supervised by the professors responsible for the subjects.

Practical activities or classes are recorded in class journals at the time they are conducted and also registered with the program coordination in the form of reports, ensuring that their implementation and evaluation are organized by the professor together with the Program Coordination.

To carry out practical activities, the institution provides the following laboratories: Human Anatomy, Informatics, Microscopy, Physiotherapy, Nursing, Simulation, and the Physiotherapy School Clinic.

The laboratories available at the institution are intended for the development of practical subjects, thereby providing laboratory experience and the performance of procedures prior to community service, under the guidance and supervision of the course professor responsible for such activities/subjects.

The evaluation of students' practical activities is carried out daily, individually, based on the following items:

- **Biosafety:** compliance with safety control standards available on the Ministry of Health's website and addressed in a specific course;
- **Theoretical knowledge:** student's ability to respond to questions related to theoretical content linked to the practice being performed;
- **Materials/Instruments:** appropriate use of proper materials and instruments, duly sterilized as required and within validity, necessary for carrying out the subject's practical activities;
- **Organization:** systematic execution of work with care, organized use of materials and instruments required for technical procedures;
- **Proactivity/Interest/Self-control:** commitment to performing procedures and conduct, appropriate problem-solving, and timely decision-making.

The evaluation also considers students' willingness to collaborate with peers in practical activities, as well as their initiative and willingness to help when requested.

3.7 Supervised Curricular Internship

According to Resolution No. 559 of September 15, 2017, of the National Curriculum Guidelines for Physiotherapy programs, the Supervised Curricular Internship is a curricular component aimed at consolidating the desired professional performance inherent to the graduate's profile. Each institution, through its Higher Academic Councils, must approve the corresponding regulations, with their different operational modalities. To note:

- **XIII** – Physiotherapy bachelor training will include, as an integral stage of the undergraduate program, the mandatory curricular internship in service training, which may be carried out in the institution's own services or in affiliated ones, under partnerships established through agreements signed between public and/or private entities, as provided in current internship legislation;
- **XIV** – The mandatory curricular internship must be carried out under the guidance and supervision of a physiotherapist professor and a physiotherapist supervisor from the Higher Education Institution (HEI), preferably in the settings of the Unified Health System (SUS), allowing the student to learn and experience public health policies in various life situations, the organization of the current health system, and interprofessional and multidisciplinary teamwork;
- **XVI** – The minimum workload for the mandatory curricular internship must correspond to 20% of the program's total workload and must proportionally ensure professional practice at different levels of health care (primary, secondary, and tertiary), except for regional peculiarities duly justified in the Pedagogical Project, addressed in the graduate profile and professional competencies.

The program will allow students to carry out internships in public and private institutions, with the goal of bringing them closer to their future professional fields, establishing effective relationships between the Institution and the Job Market. The Internship Program will be

developed according to the Internship Coordination rules, ensuring the quality and accountability of all parties involved.

Thus, all internships will require formal agreements.

Main Objectives of the Supervised Internship

- Provide students with effective experiences in their future professional field;
- Enable the complement of students' academic training through their integration into situations and realities that demand and expand their knowledge, particularly those related to micro, small, medium, and large organizations;
- Establish a productive and dynamic interaction between the program and micro, small, and medium-sized enterprises/organizations.

The internship must enable professional, social, and cultural complementation, carried out in accordance with the academic calendar and without prejudice to students' academic activities.

The Physiotherapy program's curricular internships are supervised and managed full-time by professors in the designated internship areas. For this purpose, the professional must be regularly registered with the Regional Council of Physiotherapy and Occupational Therapy (CREFITO) and hold at least a Lato Sensu postgraduate degree with experience in the area they will supervise.

Specific Objectives

Equip the student so that they can:

1. Improve knowledge, skills, and attitudes necessary to provide physiotherapy care to clients;
2. Investigate the context of physiotherapy care, identifying problems, proposing interventions, and evaluating results;
3. Experience the coordination of the physiotherapy work process;
4. Develop attitudes that foster positive work relationships;
5. Integrate into the healthcare team, assuming the role of a professional;

6. Analyze the image of the healthcare team and the Institution as perceived by internal and external clients;
7. Develop activities related to physiotherapy teaching, research, management, and care;
8. Act as an agent of change aimed at developing physiotherapy;
9. Transition from student to professional life.

Activities to be Developed

1. Integration into the institution: introduction to the physiotherapy team, healthcare staff, and clients;
2. Study of the image of the physiotherapy team, healthcare staff, and the Institution as perceived by internal and external clients, and correlation with quality indicators;
3. Diagnosis for institutional knowledge, physiotherapy service, and clientele, and adjustment of the action plan;
4. Prioritization of issues and preparation of an action plan integrating institutional expectations with internship objectives;
5. Involvement of the healthcare team and professors in proposing, executing, and evaluating the action plan;
6. Requesting guidance for the plan's operationalization from accredited professors when necessary;
7. Continuous feedback to the institution's professionals on the evolution of the action plan;
8. Submission of weekly reports to the professor for filing in the Secretariat at the end of the internship;
9. Reporting and critical analysis of experiences in the classroom;
10. Evaluation of learning, the professor, and the subject.

Didactic-Pedagogical Strategies

Teaching will occur through field experiences in units, according to student-professor selection criteria, institutional availability, and acceptance. In the field, problematization strategies of the experienced practice, preparation of an action plan, execution, and

evaluation will be used. Case studies, observation, correlation with prior knowledge, and intervention planning will be the main tools used by students. Team discussions will also be a key strategy for student development, guided by the institution's mission and philosophy, respecting the path already taken by the professionals comprising these teams, contributing to the evolution of the local physiotherapy process and work relations.

Internship Fields

The program provides that 37% of internships will be carried out in hospitals and 63% distributed between Family Health Units and the School Clinic. It should be clarified that all supervised internship activities are carried out within institutions of the Congregation of the Sisters of Santa Marcelina, representing approximately 1,400 hospital beds and more than 80 primary health units, under the Family Health Program strategy.

Groups will consist of 6 interns, according to criteria pre-established by the Coordination, in compliance with COFFITO Resolution No. 153 of November 30, 1993.

In planning and supervising students in the supervised curricular internship, the effective participation of the physiotherapist in the healthcare service where the internship takes place will be ensured. The minimum supervised curricular internship workload totals 900 hours, in compliance with CNE/CES Opinion 329/2004, distributed across the 6th, 7th, and 8th semesters, with the 6th dedicated solely to service observation.

Internships will be offered in the following fields:

- Hospital Physiotherapy – Adult ICU
- Hospital Physiotherapy – Pediatrics
- Hospital Physiotherapy – Internal Medicine
- Public Health – Primary Health Unit
- Outpatient Physiotherapy – Orthopedics, Traumatology, and Rheumatology
- Outpatient Physiotherapy – Adult Neurology
- Outpatient Physiotherapy – Pediatric Neurology

Internships will mandatorily be offered from Monday to Thursday during the academic semester, in the morning and afternoon shifts, and it is the student's responsibility to ensure availability to complete the hours required each semester.

Clinic – School

The clinic-school will provide outpatient care in Orthopedics, Traumatology and Rheumatology, Adult and Pediatric Neurology, and Public Health.

Therapy sessions will be offered in 50-minute increments, with five specialty care sessions and one session focused on health promotion and prevention, organized in groups. The schedule is as follows:

1. 7:30 a.m. – 8:20 a.m. (specialties)
2. 8:20 a.m. – 9:10 a.m. (specialties)
3. 9:10 a.m. – 10:00 a.m. (specialties)

   Break: 10:00 a.m. – 10:10 a.m.
4. 10:10 a.m. – 11:00 a.m. (specialties)
5. 11:00 a.m. – 11:50 a.m. (specialties)
6. 11:50 a.m. – 12:40 p.m. (public health)

Internships are offered on a rotation system, where all interns rotate through all areas of practice, completing the required hours for each field, ensuring continuity of care throughout the academic term.

3.7.1 Monitoring Mechanisms

Students will receive support and supervision from the Internship Coordinator, whose role is to guide them in their internship needs and to maintain a link between the student and the organization/company.

The supervised internship requires a total workload of 900 hours, divided as follows: 450 hours in the 7th semester and 450 hours in the 8th semester.

The internship must provide students with the opportunity to apply the knowledge acquired through the study of curricular components during the course, as well as perform diagnostics and evaluations in the context of the professional environment.

The Supervised Internship must follow the rules established in its own internal regulations.

3.8 Complementary Activities

Education is conceived as a tool that offers individuals the opportunity to construct their own intellectual formation. Based on this principle and in accordance with **Resolution No. 559, of September 15, 2017**, of the National Curriculum Guidelines for the Physiotherapy course, Chapter III, Article 9, Paragraph III – "Create mechanisms for recognizing complementary activities carried out by students, such as participation in tutoring, internships, scientific initiation programs, supplementary studies, courses, and congresses conducted in specific and/or related areas, in addition to community and student activism.

The project should provide opportunities for academic mobility and exchange programs to foster knowledge acquisition and sharing, learning new cultures, and improving foreign language skills;
a) Complementary Activities must not exceed 5% of the total course workload."

Complementary Activities are curricular components of the undergraduate courses at Santa Marcelina College, consisting of academic, professional, and sociocultural activities. They aim to stimulate independent study with an interdisciplinary and transdisciplinary character, enabling students to acquire new knowledge not only in the classroom but also through independent activities, particularly in relation to the professional world and community extension actions.

Thus, Complementary Activities consist of a set of extracurricular activities carried out inside and/or outside the Santa Marcelina College environment, such as participation in conferences, seminars, symposiums, lectures, tutoring, volunteer work, debates, research projects, among others. These activities should allow multiple academic activities to count toward the fulfillment of total course hours.

Students must submit supporting documentation for the Complementary Activities performed according to the deadline established by the College.

Evaluation of these activities will be expressed as **Completed** (performed) or **Not Completed** (not performed).

The total workload for Complementary Activities in the course is 240 hours, and they must comply with the rules established in the internal regulations.