



FMUSP WINTER SCHOOLS 2026 OUTLINES

INDEX

Index

Presentation	3
Program overview	4
Application call	5
Acute Care and Trauma Surgery.....	8
Clínica Quirúrgica	9
Clinical Practice in Obstetrics and Gynecology: New Insights	10
Expanding the Frontiers of Dermatology	11
Key Lessons from Rheumatic Autoimmune Diseases	13
Neglected Tropical Diseases and Emerging Viral Infections: Health Challenges in Brazil in the 21 st Century	15
Neuroclerkship: Mastering the Neurological Exam Through Real Patients	17
Exam Orthopedics, Traumatology and Sports Medicine: An Immersion in the Daily Life of Musculoskeletal Sports Pathologies Through Real Patients	18
Pediatrics	19
Physical and Rehabilitation Medicine.....	21
Plastic Surgery.....	23
Practical Aspects of Modern Cardiology/ Pneumology: A Multidisciplinary Clinical and Translational Approach	24
Psychiatric Interview	26
The Aging Process – Biological and Social Aspects.....	27

PRESENTATION

Dear partners and students,

After nine very successful editions of our FMUSP Winter Schools, we are honored to present you our **tenth** and next one!

The FMUSP Winter Schools 2026 consists of 2 weeks of in-person educational activities in one of these 14 different topics: *Acute Care and Trauma Surgery; Clínica Quirúrgica; Clinical Practice in Obstetrics and Gynecology: new insights; Expanding the frontiers of Dermatology; Key Lessons from Rheumatic Autoimmune Diseases: A Two-Week Program; Neglected Tropical Diseases And Emerging Viral Infections: Health Challenges In Brazil In The 21st Century; Neuroclerkship: Mastering the Neurological Exam Through Real Patients; Orthopedics, Traumatology and Sports Medicine: An Immersion in the Daily Life of Musculoskeletal Sports Pathologies; Pediatrics; Physical and Rehabilitation Medicine; Plastic Surgery; Practical aspects of modern Cardiology/pneumology: a Multidisciplinary clinical and Translational approach; Psychiatric Interview; The Aging Process - Biological and Social Aspects*; from **July 20 to 31, 2026**, at University of São Paulo Medical School in São Paulo, Brazil.

Beside the educational program, there will also be visits in our Health Care System ([Hospital das Clínicas Complex](#)). The experience also includes a welcome reception with a coffee break, a final lunch, and a cultural activity organized, all carried out in English, by FMUSP's International Office.

The Winter School will provide you with a great opportunity to meet new people from all over the world and to share your interests and knowledge in Medical Areas. Come participate in this once-in-a-lifetime experience!

You will find more information on the following sessions: Program Overview, Application Call and Courses Outlines. **The deadline for application is March 31th, 2026.**

Please visit our [website](#) for updates throughout the upcoming months. Feel free to contact us if you need any further information (winterschools@fm.usp.br).

Kindest regards,



Eloísa Silva Dutra de Oliveira Bonfá
Dean
Faculty of Medicine



Valeria Aoki
President of International Relations Committee
Faculty of Medicine

PROGRAM OVERVIEW

Period	From 20 to 31 July 2026.
Schedule	Monday to Friday, mornings and afternoons.
Location	University of São Paulo Medical School <i>Hospital das Clínicas Complex</i> São Paulo, Brazil
Fee	Applications: free of charge Course fee: USD 150 (single fee applicable to all students). Course fee + 15-day accommodation in student housing on campus: USD 750.
Course language	English
Number of participants	Minimum 20
Certificate	According to the Universities rules, a certificate of participation will be provided to students that have met minimal grades and attendance criteria.
Application	Online application will be open from February 10th until March 31, 2026 Registration Form available on this link
Application Results	The results will be available by April 10th, 2026 .
Eligibility; Application Procedure; Documents; Calendar; Selection criteria.	Check the following Application Call
Accommodation	FMUSP does not provide free housing facilities for international students. However, there is an option inside the campus: http://www.fm.usp.br/en/accommodation/accommodation
Contact	http://www.fm.usp.br/en/winter-schools/Programoverview winterschools@fm.usp.br

APPLICATION CALL

1. Opportunities

- 1.1. FMUSP Winter School 10th Edition will take place at the University of São Paulo Medical School, from 20 to 31 July 2026.
- 1.2. This edition will select the minimum of 20 students for the following courses, which will be given completely in English, with the exemption of Clínica Quirúrgica:
 - Acute Care and Trauma Surgery;
 - Clínica Quirúrgica (to be taught in Spanish);
 - Clinical Practice in Obstetrics and Gynecology: new insights;
 - Expanding the frontiers of Dermatology;
 - Key Lessons from Rheumatic Autoimmune Diseases: A Two-Week Program;
 - Neglected Tropical Diseases And Emerging Viral Infections: Health Challenges In Brazil In The 21st Century;
 - Neuroclerkship: Mastering the Neurological Exam Through Real Patients;
 - Orthopedics, Traumatology and Sports Medicine: An Immersion in the Daily Life of Musculoskeletal Sports Pathologies;
 - Pediatrics;
 - Physical and Rehabilitation Medicine;
 - Plastic Surgery;
 - Practical aspects of modern Cardiology/pneumology: a Multidisciplinary clinical and Translational approach;
 - Psychiatric Interview;
 - The Aging Process - Biological and Social Aspects;
- 1.3. All expenses, like accommodation, flight tickets, transportation, meals, visa, personal expenses, will be covered by the student.

2. Calendar (subject to small changes)

from February 10th until March 31st, 2026	Applications Submission Period
10 April 2026	Results
30 April 2026	Deadline to send the proof of payment
30 June 2026	Health insurance, Flight Information submission and Vaccination (an email will be sent)
20 July 2026	Winter School Starts
31 July 2026	Winter School Ends
31 July 2026	Report Submission (online form)

3. Eligibility and requirements

- 3.1. Applicants must fulfill the requirements below:
 - 3.1.1. Be enrolled as an undergraduate, bachelor student in Health Sciences or as a medical student in a foreign Institution or in a Public University in Sao Paulo state (USP, UNICAMP, UNESP, FAMEMA, FAMERP, SANTA CASA - Universities from other states are not included in this edition);
 - 3.1.2. Be proficient in English;
 - 3.1.3. Be fully vaccinated;
 - 3.1.4. Fulfill the specific course requirements (check the specific course outline);
 - 3.1.5. Applicants who did not participate in previous editions will have their applications prioritized.
- 3.2. The selected candidates must commit to:
 - 3.2.1. Not to fail the class he/she is enrolled at;

- 3.2.2. Not to miss a single day of class without good reason (i.e. sickness);
- 3.2.3. To write a final report of his/her experience.

4. Selection Criteria

- 4.1. All applications are first screened by the Winter Schools Team for fulfilling the following criteria:
 - 4.1.1. having met the application deadline;
 - 4.1.2. completeness of the application;
 - 4.1.3. having met the eligibility criteria (see point 3);
- 4.2. All applications that meet the requirements in 4.1. are then assessed by the course coordinator against the following selection criteria:
 - 4.2.1. student scholarly performance, including prizes and/ or distinguished academic activities at his/her home institution;
 - 4.2.2. motivation statement and recommendation from his/her Home Institution;
 - 4.2.3. plurality of institution representativeness, and
 - 4.2.4. other criteria still to be defined by the Program Coordinator.
- 4.3. In case FMUSP Winter Schools receive many applications from the same university, FMUSP may request the sending university to rank its students.

5. Application procedure

- 5.1. The application submission deadline is mentioned in the Calendar above (see item 2). No exceptions will be considered.
- 5.2. To apply, fill out the **application form** [available on this link](#) (from February 10 until 23h59 (GMT-3) of March 31, 2026) and attach the documents below:
 - 5.2.1. Copy of **passport** identification page;
 - 5.2.2. **Photo** for your Winter School Student ID card;
 - 5.2.3. **Curriculum Vitae (CV)**: Summary of your academic background, professional experience, and relevant achievements.
 - 5.2.4. Confirmation letter stating that the student is currently enrolled in an undergraduate program or equivalent in Medicine or a related health field.
 - 5.2.5. Record of attended courses and grades (**transcripts of records**) mentioning your overall score, certified by your Home Institution (no translation required);
- 5.3. Please note that documents that do not meet the following criteria will not be considered:
 - 5.3.1. All scanned documents must be in good quality, straight and not blurred. If you cannot reach a good quality scan image with your mobile device, we strongly recommend you to use a regular scanner.
 - 5.3.2. All documents must be renamed with the applicant's name according to these examples: "Firstname_LASTNAME_Passport"; "Firstname_LASTNAME_Photo"; "Firstname_LASTNAME_CV" etc.
 - 5.3.3. The completed application form accompanied by all the required documents (item 5.2) must be submitted by 23h59 (GMT-3) March 31, 2026. Applications via email will **not be considered**.

6. After the selection

6.1. After the selection, the selected applicants:

- 6.1.1. must consult the Brazilian Embassy or Consulate in their home countries in order to verify if they need a visa. Short stay (up to 90 days): Depending on your NATIONALITY, you may be required to obtain a visa to enter Brazil (visit visa = VIVIS) or can travel visa-free. To find out if you need a VIVIS to travel to Brazil, [click here](#).
- 6.1.2. will receive further instructions about housing applications and practical information for preparing their arrival.
- 6.1.3. will be required to present **flight/arrival information**, health **insurance** (covering the whole period of their stay in Brazil) and **an immunization form** to be completed.

6.2. After the course conclusion, students who have met 80% of attendance and had a grade of at least 7,0 (out of 10,0), will receive a certificate of participation by their courses.

7. Further information

7.1. Due to the high volume of email queries, we might be unable to reply to requests for information which is already fully outlined in detail on this call. If the applicant needs any information that is not expressed on this call, please contact winterschools@fm.usp.br .

Acute Care and Trauma Surgery

DEPARTMENT OF SURGERY

GENERAL DESCRIPTION

The emergency department of the Hospital das Clínicas is the main trauma center in São Paulo, and has a specialized multidisciplinary team for trauma patients. Moreover, the service is reference for acute care surgery, mainly acute abdomen in critical and oncologic patients. Due to the Hospital's cutting-edge technology and surgical staff qualification, the patient population receive a high-quality treatment. Therefore, the discipline of general surgery and trauma has a commitment to train students and residents. So, they are exposed to complex and challenging cases and receive a unique training in emergency surgery.

COURSE OBJECTIVES

- Evaluate the complex trauma patient and recognize the treatment and operative management's principles;
- Recognize an acute abdomen and its diagnosis and treatment challenges;
- Evaluate and analyse the image findings in surgical emergencies tomography and ultrasound);
- Evaluate the postoperative management of complex trauma and acute care surgery in the intensive care unit.

TEACHING METHODS

- Cases and papers discussion;
- Trauma management: atls simulation
- Rounds in the emergency department and emergency surgical intensive care unit
- Operative room exposure
- Point of care ultrasound basics
- Cadaver dissection and anatomy
- Surgical skill laboratory technique

WHO SHOULD ATTEND?

Medical students from the last two years of Medical School.

Course Coordinators

Professor Edivaldo Massazo Utiyama

Faculty:

Roberto Rasslan and Francisco de Salles Collet e Silva

Course material:

Review Papers

Clínica Quirúrgica (Dirigido a hispanohablantes)

DEPARTAMENTO DE CLÍNICA QUIRÚRGICA

DESCRIPCIÓN GENERAL

Este curso proporcionará a los estudiantes una comprensión profunda y precisa de la anatomía humana mediante el uso de especímenes anatómicos plastinados, que preservan fielmente las estructuras orgánicas. El curso busca integrar la teoría y la práctica, permitiendo a los estudiantes:

Reconocer, identificar y comparar estructuras anatómicas a partir de especímenes reales preservados.

Desarrollar el razonamiento anatómico aplicado a las ciencias de la salud, con énfasis en las correlaciones clínicas.

Mejorar la orientación espacial, la observación y la interpretación anatómica.

Comprender las ventajas, limitaciones y aplicaciones de la técnica de plastinación en la enseñanza anatómica moderna.

Estimular el aprendizaje activo y el contacto directo con materiales didácticos de alta calidad, contribuyendo a una base sólida y segura para el ejercicio profesional.

Al finalizar el curso, los estudiantes serán capaces de relacionar el conocimiento anatómico con situaciones clínicas reales, utilizando especímenes plastinados como herramienta esencial para consolidar el aprendizaje.

OBJETIVOS DEL CURSO

Este curso ofrecerá fundamentos anatómicos relacionados con la sintopía, la percepción tridimensional de los diferentes sistemas y aparatos del cuerpo humano. El conocimiento anatómico es fundamental. Para la exploración física, el diagnóstico regional y anatómico, así como para la práctica clínica y quirúrgica.

MÉTODOS DE ENSEÑANZA

Este curso se basará en videos grabados asincrónicamente utilizando la metodología flipped-class para el análisis y estudio sincrónico presencial de piezas laminadas.

¿QUIÉN DEBE ASISTIR?

Este curso puede ser tomado por estudiantes desde el segundo hasta el sexto año de estudios de pregrado.

Coordinador(es):

Alfredo Luiz Jacomo

Material del curso:

Internet, placas plastinadas

Requisitos previos:

Alunos pregrado

Con dominio del español

Clinical Practice in Obstetrics and Gynecology: New Insights

DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

GENERAL DESCRIPTION

Participation as an observer of medical assistance in clinical cases of high and low complexity in the gynecology and obstetrics divisions at the Hospital das Clínicas da Faculdade de Medicina da Universidade de São Paulo. Discussion of clinical cases in the various topics of the specialty and comparison with medical care provided in other countries.

COURSE OBJECTIVES

Provide the exchange student with the observational experience of high and low complexity care in gynecology and obstetrics at the HCFMUSP complex divisions, with a deep understanding of women's health in the Brazilian context.

TEACHING METHODS

Observational practice of different areas of outpatient and surgical activities, with discussion of clinical cases, protocols and reflection on regional differences. Students will be invited to present the overview of women's health in their countries of origin in its various aspects, compared to the Brazilian reality.

Students will be assessed as to attendance, interest, punctuality, ethical position and capacity for interaction.

At the end, there will also be a test about the content, with objective questions and tests.

WHO SHOULD ATTEND?

Medicine students interested in Gynecology and Obstetrics, in the Brazilian context, and who already have a notion of Anatomy, Physiology and Semiology in Gynecology and Obstetrics.

Course Coordinators

Professor Dr. José Maria Soares Junior
Professor Marco Antônio Borges Lopes
Professor Rossana Pulcineli Vieira Francisco

Course material:

To be made available during the course.

Prerequisites:

To be studying a degree in medicine from the 5th semester onwards

Expanding the Frontiers of Dermatology

DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

GENERAL DESCRIPTION

Dermatology is a crescent specialty worldwide, although it is usually an elective rotation in many medical programs. The Department of Dermatology of our Institution offers the opportunity for international medical students to share a unique approach of skin diseases, facilitating dermatology education across disciplines.

This course will focus on clinical principles of General Dermatology, Tropical Dermatology, Autoimmune/inflammatory skin diseases, and Skin cancer, intermingled with Dermatopathology, Immunodermatology and Translational Dermatology.

Traditional bedside rounds and practical clinical classes at the Outpatient Subspecialties Clinics offers active, real-time activity of the attendants.

COURSE OBJECTIVES

Main objectives of this course are below listed:

1. To allow medical students to improve their dermatological skills through traditional clinical semiology, with additional complementary, non-invasive diagnostic tools.
2. To expand the awareness of early diagnosis of potential severe skin/systemic diseases.
3. To improve global understanding of Dermatology, including tropical dermatoses, skin cancer, and autoimmune/inflammatory diseases with skin involvement, based on clinical and laboratory approaches.

TEACHING METHODS

A-The medical students will take part in:

1- Interactive bench to bedside lectures with senior faculty, including essential topics: basic dermatology, tropical skin diseases, skin cancer and allergy/inflammation; autoimmune skin diseases. For this activity, students will have access to related articles/materials in advance.

2- Guided 1-hr seminars, including the major topics of this program. The students have to prepare a short presentation, and the faculty members will provide a clinical case for discussion.

3- Student rounds monitored by a faculty member 5x/week, with patients from dermatology admission, ward and subspecialty clinics; once a week (Thursday morning, from 10:30am -12:00 pm) the students will join the grand rounds, with all the staff, students and residents.

4- Visit to the dermatologic surgery facility and investigative laboratories of the department.

5- Introduction to interactive dermatological sessions with other medical specialties.

B-Evaluation of the participants of winter school-dermatology

The students' performance will be based on his/her active input during seminars and clinical rounds, and a team-based case discussion with oral evaluation.

WHO SHOULD ATTEND?

- Medical students with pre-clinical knowledge
- Number of attendants: 4 - 7 students

Course Coordinators

Valeria Aoki
Celina Maruta

Faculty

Professors from the Department of Dermatology and Senior Attending Clinicians from Hospital das Clínicas-Division of Dermatology (Valeria Aoki, Celina W. Maruta, Gil Benard, Marcello Nico, Maria da Gloria Stafocker, Raquel Leão Orfali, Jade Martins Cury, Denis Miyashiro, João Avancini, Marcelo Arnone, Nelson Ferrari, Denise Miyamoto and Marcella Pincelli)

Course material:

Articles about the main dermatological themes, online videos and Dermatology textbooks

Prerequisites:

Medical students with pre-clinical knowledge
Fluent English

DEPARTMENT OF RHEUMATOLOGY**GENERAL DESCRIPTION**

The main objective of this course is to provide a general overview of the spectrum of diseases managed by rheumatologists in both inpatient and outpatient settings, as well as to highlight the different clinical scenarios that require the involvement of a rheumatologist.

Rheumatologists care for patients with common degenerative diseases such as osteoporosis and osteoarthritis; metabolic conditions such as gout; and soft tissue disorders frequently encountered by orthopedists. In addition, they manage autoimmune diseases such as systemic lupus erythematosus and rheumatoid arthritis, which can severely affect predominantly young patients and are often associated with systemic manifestations.

Our institution is a quaternary referral hospital that treats a large number of patients from all regions of Brazil with autoimmune rheumatic diseases. The breadth and complexity of the autoimmune disease spectrum encountered here represent a unique learning opportunity.

Feedback from previous participants indicates highly overall satisfaction.

COURSE OBJECTIVES

By the end of the course, medical students should be able to recognize the most important patterns of rheumatologic diseases. They will learn when to refer patients to a rheumatologist based on key clinical red flags.

Students will also be able to assess whether rheumatology may be a potential specialty choice for their future career.

TEACHING METHODS

Our main objective is to provide students with a real-life clinical experience involving uncommon and severe cases that are typically encountered only in textbooks.

Clinical attendings conduct individualized case discussions with each patient in both the inpatient and outpatient rheumatology units, and students will accompany rheumatology fellows during patient evaluations. Over a two-week period, students will rotate through the following areas: pediatric rheumatology, spondyloarthritis, rheumatoid arthritis, gout, antiphospholipid syndrome, systemic lupus erythematosus, triage, osteoarthritis, sports medicine, the inpatient unit, the biologic therapy outpatient clinic, and the osteoporosis unit.

The program also includes one multidisciplinary grand round featuring a multispecialty case discussion.

The course is 90% practical, based on direct patient evaluation, and is complemented by targeted theoretical instruction.

WHO SHOULD ATTEND?

Medical students in their 4th year of training or beyond

Course Coordinators

Danieli Andrade



Course material:

Students will be oriented during the training

Prerequisites:

Medical students in their 4th year of training or beyond.

Neglected Tropical Diseases and Emerging Viral Infections: Health Challenges in Brazil in the 21st Century

DEPARTMENT OF INFECTIOUS DISEASES

GENERAL DESCRIPTION

Neglected tropical diseases (NTD) constitute a diverse group of infectious diseases that affect mainly the poorest populations of the globe, whereas emerging infections are defined as those whose incidence in humans has increased in the past 2 decades or threaten to increase in the near future.

Brazil and other Latin American countries still present a significant burden of disease caused by NTD. In addition, these areas of the globe have recently been affected by outbreaks of emerging viral infections with remarkable public health impact. Knowledge about host-pathogen mechanisms and the recognition of social and environmental determinants of both NTD and emerging infections is crucial for the clinical management of individual cases and for the development and implementation of efficient prevention and control measures. In this intensive course students will be exposed to clinical and public health aspects of NTD that are epidemiologically relevant in Brazil, such as leprosy, Chagas' disease, leishmaniasis, schistosomiasis and soil-transmitted helminthic diseases.

In addition, malaria, tuberculosis and poisonous animal bites will be discussed. A special attention will be given to Brazilian outbreaks of emerging arboviral infections, including dengue, chikungunya, zika and yellow fever.

COURSE OBJECTIVES

To enhance participants' skills in:

- Understanding host-pathogen interactions in NTD, emerging viral infections and other important infectious diseases
- Recognizing clinical features of these diseases
- Understanding interventions that are recommended for their management, prevention and control

TEACHING METHODS

Students will participate in interactive sessions that will cover from bench to bedside and from bedside to field perspectives of NTD and emerging viral infections, consisting of background lectures, clinical rounds in inpatient wards and visits to outpatient clinics and research laboratories. Assessment will be based on the evaluation of students' participation in course activities and on their performance in a test to be given at the end of the course.

WHO SHOULD ATTEND?

Medical students with some pre-clinical knowledge interested in NTD, emerging viral infections and/or global health determinants and challenges.

Course Coordinators

Silvia Figueiredo Costa

Faculty

Professors of the Department of Infectious Diseases and Senior Clinicians at Hospital das Clínicas - Division of Infectious Diseases

Course material:

Mandell, Douglas and Bennett's Principles and Practice of Infectious Diseases, edited by John Bennett, Ralph Dolin, and Martin Blaser, 9th edition, Churchill-Livingston, 2019. Additional material will be provided in class

Prerequisites:

Basic science

Neuroclerkship: Mastering the Neurological Exam Through Real Patients

DEPARTMENT OF NEUROLOGY

GENERAL DESCRIPTION

This course consists of a patient-based learning of neurologic and cognitive examination across major neurological disorders, including neuromuscular diseases, neuroinflammatory and infectious disorders, cognitive decline and dementias, movement disorders, headache syndromes, and cerebrovascular diseases. Through direct clinical exposure and guided bedside teaching, students will develop practical skills in neurological history-taking, comprehensive motor and cognitive examination, and diagnostic reasoning across diverse real-world presentations.

COURSE OBJECTIVES

By the end of this course, the student will be able to obtain a comprehensive neurological history and perform a complete neurological and cognitive examination.

Students will also develop a structured, step-by-step approach to neurological clinical reasoning, including:

- Syndromic diagnosis — identifying which neurological systems are affected;
- Topographical diagnosis — determining the likely location of the lesion within the nervous system;
- Differential diagnosis formulation based on clinical data;
- Development of a therapeutic plan tailored to the patient's presentation.

TEACHING METHODS

- Supervised patient evaluation: Direct bedside examination of patients, followed by guided discussion of findings with faculty supervision.
- Case-based learning: Analysis of prototypical cases across major neurological subspecialties to reinforce clinical patterns and diagnostic reasoning.
- Ancillary test interpretation: Review and discussion of key neuroimaging studies and complementary diagnostic methods relevant to each case.
- Therapeutic decision-making: Structured discussions focused on formulating evidence-based management and treatment plans.

WHO SHOULD ATTEND?

- 3rd- to 6th-year medical students in countries with a 6-year medical curriculum.
- 3rd- to 4th-year medical students in the United States, Canada, or other countries that follow a 4-year medical school structure.

Course Coordinators

Luiz Henrique Martins Castro

Course material:

Google Classroom

Prerequisites:

Neuroanatomy and neurophysiology

Exam Orthopedics, Traumatology and Sports Medicine: An Immersion in the Daily Life of Musculoskeletal Sports Pathologies Through Real Patients

DEPARTMENT OF ORTHOPEDICS AND TRAUMATOLOGY

GENERAL DESCRIPTION

In this course, students will follow the daily routine of the Institute of Orthopedics and Traumatology of IOT-HCFMUSP, including activities in the emergency room, surgical center, ward, outpatient clinic, contact with injuries in athletes, and sports medicine. In addition, external visits to relevant locations such as the medical department of football clubs will be scheduled. They will have the opportunity to understand how a hospital focused exclusively on the treatment of musculoskeletal injuries works and will understand the main pathologies related to sports practice.

COURSE OBJECTIVES

By the end of the course, students will have learned how to act in frequent musculoskeletal pathologies, including orthopedic emergencies, and how to manage the most frequent injuries related to sports activities, including football and other sports frequently practiced in Brazil.

TEACHING METHODS

The course consists of some theoretical classes on the most frequent musculoskeletal and sports pathologies and many practical classes, for example on immobilizations and physical examination. In addition, students will have the opportunity to visit various sectors of the hospital, as well as external visits to medical departments of professional sports clubs.

WHO SHOULD ATTEND?

All medical students are welcome to participate in this course, as it encompasses activities of interest to all years of medical school.

Course Coordinators

Camilo Partezani Helito
André Pedrinelli

Course material:

The teaching materials will be organized later

Prerequisites:

Students in their second year of medical school or later

Pediatrics

DEPARTMENT OF PEDIATRICS

GENERAL DESCRIPTION

Pediatric chronic conditions (PCC) are increasing in the first two decades of life, and it is estimated that 17-20% of children and adolescents present PCC. The Department of Pediatrics at FMUSP has developed significant expertise in diagnosis and in multidisciplinary approach to PCC, both common and rare illnesses. Currently, around 18,000 children and adolescents with several types of PCC are followed at FMUSP Children and Adolescents' Hospital (Instituto da Criança e do Adolescente HC-FMUSP). Bronchial asthma associated to upper airways allergic disorders is the most common PCC in these age groups, affecting up to 12% of children and adolescents. Overweight and obesity have risen dramatically in the last decades around the world, and certainly constitute the second most common PCC still in early life. Autoimmune and other immune-mediated diseases, such type 1 diabetes mellitus, childhood-systemic lupus erythematosus, inflammatory bowel disease and humoral immunodeficiencies, have also been increasingly recognized in pediatric clinical practice. Pediatric transplantation, neoplasias (particularly acute leukemia and lymphoma), genetic (such as sickle cell disease and cystic fibrosis), renal, liver and infectious conditions (HIV, tuberculosis and COVID-19) constitute nowadays important PCC in children and adolescents.

COURSE OBJECTIVES

The main objectives of this course are:

- 1) To discuss the most important pediatric chronic conditions (PCC) in children and adolescents, such as severe respiratory allergic disorders, obesity, type 1 diabetes mellitus, childhood-systemic lupus erythematosus, inflammatory bowel disease, primary hypogammaglobulinemia, cystic fibrosis, nephritis, chronic hepatitis, pediatric transplantation, tuberculosis, the main types of pediatric cancer, among others;
- 2) To discuss each PCC focusing on its epidemiology, pathogenesis, clinical and laboratorial diagnosis, treatment, outcome, precision medicine, nutritional care, as well as therapeutic education aiming at improving pediatric patient and family adherence.

TEACHING METHODS

Short lectures: presentations lasting at most 30 minutes, with interaction, questions and discussions of the proposed topics.

Case discussion: including patient's medical history, description of physical examination findings, pictures of clinical features, discussions of laboratorial and imaging abnormalities, and initial treatment.

Programmed visits: in outpatient clinics, day-hospital, neonatal care, emergency room and wards at "Instituto da Criança e do Adolescente (ICr)", "Instituto do Tratamento do Cancer Infantil (ITACI)" and "Instituto Central (IC)" of HC-FMUSP.

Evaluation will be based on performance during case discussions and attendance to the clinical visits.

WHO SHOULD ATTEND?

Undergraduate medical students: 6 to 8 students

Course Coordinators

Professor Clovis Artur Almeida da Silva, Professor Artur Figueiredo Delgado, Professora Ana Paula Scoleze Ferrer Barreto e Professor Michele Luglio.

Faculty

Profa. Ana Cristina Tannuri, Dra. Adriana Maluf Elias Sallum, Dra. Ana Paula Castro, Dra. Anna Dulce Carneiro-Sampaio, Dra. Andreia Watanabe, Dra. Katia Kozu, Dra. Karina Viani, Dra. Gabriela Leal, Dra. Heloisa Helena Marques, Dra. Nadia Emi Aikawa, Profa. Lilian Maria Cristofani, Prof. Luiz Vicente Ribeiro Ferreira da Silva Filho, Dra. Livia Lindoso, Dra. Lucia Maria Arruda Campos, Dra. Marcela Prieto, Dra. Maria Fernanda Baduê Pereira, Dra. Thais Fink.

Course material:

Lectures' power points, selected papers will be on Google Scholar

Prerequisites:

Undergraduate medical students - 6 to 8 students

Physical and Rehabilitation Medicine

DEPARTMENT OF LEGAL MEDICINE, BIOETHICS, OCCUPATIONAL MEDICINE, AND PHYSICAL AND REHABILITATION MEDICINE

GENERAL DESCRIPTION

Physical and rehabilitation medicine, also known as physiatry, is a medical specialty dedicated to the diagnosis, evaluation and care of people of all ages who experience disability. This art involves the diagnosis and treatment of patients with disabling health conditions and aims to assist them to achieve their full bio-psycho-social potential, embracing physical, functional, psychological and social factors.

It recovers what is possible, adapts what is not (or does it until it is), and trains and supports people to face their new reality, in rehabilitation diagnosis is carried out by clinical methods and additional assessments, providing rehabilitation care involves the use of preventive and therapeutic measures, training, and support, with attention to risk factors, preexisting comorbidities and impairments.

Therapeutic measures involve the use of medications, clinical procedures, rehabilitation therapies, and assistive technology (orthotics, prosthetics, and mobility aids), besides rehabilitation technologies such as rehabilitation robotics for upper and lower extremities.

COURSE OBJECTIVES

The course aims to prepare students to acknowledge the most important factors that interfere in assessing and treating functionality, through a clinical approach, including medical and therapeutic interventions.

TEACHING METHODS

Students should improve their ability to assist patients using a comprehensive approach, considering their bio-psycho-social context.

The course focuses on functional assessments and is oriented towards disabling pain syndromes, brain and spinal cord injuries, amputations, cerebral palsy and cancer rehabilitation.

This knowledge, skills and attitudes are transmitted through theoretical and practical classes offered at the in and outpatient services of the physical and rehabilitation medicine institute of the University of São Paulo Medical School general hospital.

Classes are comprised by a 30 minutes lecture followed by a monitored clinical and practical session, which count on the participation – when feasible, and as indicated in the course's program – of volunteer patients. All classes are only concluded after a group discussion on the subject and an individual assessment of that session's content.

Besides a daily evaluation for immediate feedback, students will have a final test by the end of the course.

During the course, other facilities of our institute will be visited, which include outreach rehabilitation units in the community and an inpatient rehabilitation center.

Practical activities will be applied along the course, including neurochemical blockade for pain and spasticity, use of exoskeletons in rehabilitation, neuromodulation techniques for treating cognitive decline, chronic pain and anxiety, game and robot assisted rehabilitation.

Cross-cutting content: bioengineering and innovations in rehabilitation, three-dimensional gait analysis.

WHO SHOULD ATTEND?

Medical students who are compassionate and eager to effectively address the major demands of the world of physiatry.

Previous classes gathered medical students from 2nd to 8th semester of their medical course, coming from Belgium, Brazil, Chile, Colombia, France, Japan, Mexico, The Netherlands, United Kingdom, Uruguay and the USA.

Course Coordinators

Prof. Dr. Marta Imamura, Prof. Dr. Linamara Rizzo Battistella

Course material:

Literature references and supporting materials (including slide decks, videos, and other media files) will be shared online, using Google Classroom resources.

Prerequisites:

Not applicable. Medical students enrolled from the 3rd semester on are preferred.

GENERAL DESCRIPTION

Flaps are routinely used in surgery for reconstructive and aesthetic purposes. A general surgeon needs to know about some regional flaps.

Some surgical technique learning processes are based on the Halsteadian method. However, nowadays, educational plans show the importance of a well-established learning curve.

This course aims to teach medical students how to perform basic tissue flaps (rotation, advancement, and transposition). For this reason, we offer didactic materials and hands-on workshops with no living models. The first part of this course will explain the basic steps of the surgical flap procedure and comment on the most common mistakes.

Following the procedure, we will practice flap drawing (angles, curves, and extension) with Ethylene-Vinyl Acetate material.

Finally, we will use non-living model to perform surgical flaps.

This method was published in: Camargo, C., Freire Barbosa, E., Camargo Maluf, F., Morais-Besteiro, J., & Gemperli, R. (2020). The use of simulation with non-living model to enhance medical students' learning in a surgical training course. *Principles and Practice of Clinical Research*, 6(3), 29-34. <https://doi.org/10.21801/ppcrj.2020.63.3>

COURSE OBJECTIVES

The student will achieve the following abilities:

- Competence to surgical suture
- Explain the flap physiology
- Understand the surgical flap design
- Know when to indicate surgical flaps

TEACHING METHODS

We will use Myller's pyramid method.

In the first part, we will offer theoretical material (a procedural step) and apply a pretest exam. Then, the students will practice the flap surgery in stages. We will present some clinical cases to open discussion. Finally, we will perform a surgical flap on a non-living model. In the end, we will apply a post-test exam.

WHO SHOULD ATTEND?

This workshop is helpful for health and medical students from 3rd to 6th year

Course Coordinators

Prof Rolf Gemperli
Profa Cristina Pires Camargo

Course material:

Internet, pig belly (purchase from local butchery)

Prerequisites:

Students from 3rd to 6 th year

Practical Aspects of Modern Cardiology/ Pneumology: A Multidisciplinary Clinical and Translational Approach

DEPARTMENT OF CARDIOPNEUMOLOGY

GENERAL DESCRIPTION

Cardiovascular diseases remain the leading cause of adult mortality worldwide, including in Brazil, with important geographic variations largely related to the level of regional development. The purpose of this course is to provide international medical students with an immersive, interactive, and multidisciplinary experience in modern Cardiology and Cardiovascular Surgery within a tertiary academic hospital environment.

The program integrates fundamental concepts of cardiovascular pathophysiology with advanced diagnostic, clinical, interventional, surgical, and translational approaches. Emphasis is placed on highly prevalent cardiovascular conditions affecting both developed and developing countries.

Core topics include:

- Risk factors and pathophysiology of atherosclerosis
- Heart Transplant
- Acute and chronic ischemic heart disease
- Cardiac arrhythmias
- Valvular and congenital heart diseases
- Molecular and translational cardiology
- Electrocardiography and multimodality cardiovascular imaging
- Interventional cardiology and cardiovascular surgery
- Respiratory Intensive Care unit

COURSE OBJECTIVES

The primary objective of this program is to stimulate students' interest in cardiovascular diseases and translational cardiovascular research through direct exposure to clinical practice, advanced diagnostic methods, surgical procedures, and research environments at InCor.

At the end of the program, participants will be able to:

- Correlate basic cardiovascular science with clinical practice;
- Recognize and propose initial clinical approaches to major cardiovascular diseases;
- Understand the role of multimodality imaging in diagnosis and decision-making;
- Appreciate the integration between clinical cardiology, cardiovascular surgery, pathology, and translational research;
- Establish academic interaction with InCor faculty and peers for future collaboration.

TEACHING METHODS

The course is structured around highly interactive, observational, and case-based activities, including:

- Visits to basic and translational research laboratories
- Study of cardiac anatomy and pathology using real specimens
- Interpretation and discussion of ECG, echocardiography, coronary CT, cardiac MRI, and nuclear cardiology images



Visits to the cardiac catheterization laboratory with discussion of coronary and structural interventions

- Clinical case discussions involving both inpatients and outpatients
- Clinical-pathological and surgical-pathological correlation sessions
- Observational participation in selected cardiac surgical procedures in the operating room

Interactivity is the central educational strategy, using anatomical material, imaging platforms, and real clinical cases as learning tools.

WHO SHOULD ATTEND?

Medical students from the third year onward with a strong interest in Cardiology and Cardiovascular Sciences.

Course Coordinators

Prof. Dr. Fernando Bacal
Prof. Dr. José Carlos Nicolau
Prof. Dr. Raul Dias dos Santos Filho
Prof. Vera Demarchi Aiello
Prof. Wilson Mathias Jr.
Prof. Luiz Fernando Caneo
Prof. Paulo Sampaio Gutierrez
Prof. Carlos Alberto Pastore

Course Supervisors:

Prof. Dr. Fernando Bacal
Prof. Dr. Roberto Kalil Filho
Prof. Dr. Alexandre Abizaid
Prof. Dr. Fábio Biscegli Jatene
Prof. Carlos Roberto Ribeiro de Carvalho
Prof. Rogério de Souza

Faculty

In addition to the coordinators and supervisors, several members of the InCor clinical, surgical, imaging, pathology, and research staff will participate. A complete faculty list can be provided upon request.

Course material:

Participantes will have access to:

- Updated bibliography (provided prior to the course)
- ECG tracings and multimodality cardiovascular imaging datasets
- Pathological specimens
- Recorded videos of cardiac surgical and interventional procedures

Prerequisites:

Applicants must demonstrate proficiency in spoken and written English sufficient for active participation in clinical discussions.

Psychiatric Interview

DEPARTMENT OF PSYCHIATRY

GENERAL DESCRIPTION

This course will help you to learn the main medical and psychiatric interview techniques.

You will learn how to establish a good rapport; the different phases and contents of the interview; how to avoid common errors and how to deal with difficult moments.

The most frequent psychiatric signs and symptoms will be presented and discussed.

How to do a biopsychosocial case formulation will also be presented.

Visits to the video EEG, neuromodulation, electroconvulsive and ketamine clinics will be organized.

Visits to inpatient wards and psychiatric clinics will be offered.

COURSE OBJECTIVES

The student shall be able to perform a good medical or psychiatric interview and to recognize the main psychiatric signs and symptoms.

TEACHING METHODS

Short lectures, videos, clinical cases will be presented and discussed, visits to wards and services.

WHO SHOULD ATTEND?

Medical students

Course Coordinators

João Mauricio Castaldelli Maia, Leandro da Costa Lane Valiengo, Arthur Caye, Francisco Lotufo Neto

Course material:

Will be posted in the google classroom

Prerequisites:

None

GENERAL DESCRIPTION

The course intends to offer to undergraduate students of the health care area an interdisciplinary view about human aging. It will be based on theoretical classes, plus seminars and visits to places where old persons receive attention to their health and well-being. We intend to emphasize interactive and practical activities and have the smallest possible time of theoretical classes.

Proposed themes are:

- 1- Populational aspects of aging: starting with a brief theoretical introduction, focusing on comparing population aging in high-income countries with low-middle-income countries followed by a more interactive activity: students will be invited to search for information about their own countries, and afterwards discuss it with the whole group;
- 2- Biological aspects: general and specific systems biology of aging. This theme will be explored with a period of directed study of previously selected material, followed by group discussion;
- 3- Social aspects of aging: establishing connections between the previous aspects and understanding their impact on society, following the same learning strategy;
- 4- Special issued of the aging process: functionality, frailty, immobility, sarcopenia, sexuality, therapeutic particularities, strategies for the promotion of successful aging. For those themes the strategy will be using the acquired knowledge of epidemiology and biology and combine it with the background of the participants, in order to build knowledge with their active participation.

Programed visits:

- 1- GEROLAB: a unit of the Medical School dedicated to basic research;
- 2- GEROSAÚDE: a program of free activities including, lectures, workshops, a journal, and UNAPES, an open university program offered to older persons that emphasizes health promotion;
- 3- Palliative Care Unit: an inpatient unit were patients eligible to palliative care, most of them older persons, receive adequate treatment;
- 4- Frailty and Acupuncture outpatient clinics: branches of the Geriatrics outpatient clinics dedicated to research, professional training, and treatment;
- 5- Day Hospital: a unit of the Clinics Hospital of the Medical Schools that offers intermediate daytime care;
- 6- CEDPES: a day care center dedicated to older persons, that offers a variety of activities for health promotion and leisure;
- 7- Casa Ondina Lobo: a nursing home dedicated to older persons with no family or financial resources;
- 8- ACCAPES: a fitness center directed to assistance and research on physical activity in older persons.

COURSE OBJECTIVES

To provide basic knowledge about the aging process, it's epidemiology, biological determinants and characteristics.

To discuss the social consequences of population aging.

To discuss Brazilian solutions for the problems of population aging, and encourage students to reflect on the reality of their own countries.

TEACHING METHODS

Theoretical classes: Presentations lasting 50 minutes at most, with interaction, questions and discussion of the topics along them.

Seminars: Brief presentations, followed by research of selected themes online or on previously selected material. After the research time, discussion of the answers and conclusions.

Programmed visits: Visit to places that we consider successful experiences on gerontological assistance. A member of the course staff will be present all the time, and an English-speaking local member of the local staff will be responsible for describing activities and local functioning. Students are also expected to interact with the older persons, with the support of the teachers for translation.

Study material will be available at Google Classroom, as soon as the platform is opened to the students.

Evaluation will be based on performance during seminars, attendance to activities and participation of activities proposed at Google Classroom.

WHO SHOULD ATTEND?

Undergraduate students of medicine, and other biomedical and social areas.

Modern health care involves intense interaction of professionals of different specialties. From our previous experience, not only in Winter Schools, but also other teaching and training activities, we realized that the presence of students of varied health care areas is a very enriching situation, not only for acquiring new information, but also for getting acquainted with team work.

Course Coordinators

Yolanda Maria Garcia, MD, PhD, assistant Professor of Geriatric Medicine

Eduardo Ferriolli, MD, PhD, Full Professor of Geriatric Medicine

Course material:

Textbooks and articles from journals available at our library and online.

Prerequisites:

Being an undergraduate student of the medical, biomedical or social areas.