

CALL FOR APPLICATIONS FOR HONORS TRACKS 2024/2025

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Art. 1 Purpose and Objectives

For the academic year 2024-2025, Humanitas University offers its students the opportunity to apply “Honors Tracks” (hereinafter HTs). HT are based on the specialist medical areas (residencies and centers) of the University and associated hospitals as well as on topics of special relevance such as global health issues, primary care and family medicine.

Purpose of the HTs:

- Offer students the opportunity to acquire additional knowledge, skills, and competences in a chosen area
- Support students in making a more informed choice concerning their residency school after graduation by helping them to understand their aptitude for a specific specialty area
- Improving the curriculum vitae: in many countries the selection process for postgraduate programs begins with an initial evaluation of a young physician’s curriculum vitae, therefore, making the acquisition of additional credits is a valuable asset in the selection process.

Art. 2 Honors Tracks Activities

HTs are organized according to the topic/area. They may include intensive periods from June to September, from January to February and/ or activities during the first and second semester.

Depending on the track, the type of activities may include seminars, simulation, outpatient activities, ward activities, operating room activities, multidisciplinary meetings, clinical case discussions, journal clubs.

HTs are designed to provide 10 CFU/ECTS that are recorded in the diploma supplement as a part of the student’s learning pathway. To obtain these extra credits, students of HTs need to pass a final exam related to the track and to complete all exams of the Degree programme in Medicine and Surgery or Medtec.

Art. 3 Number of places available

For the academic year 2024/25 Humanitas University will activate the following Honors Tracks:

- Honors Track in Oncology (Oncotrack) with 12 places available (Annex A);
- Honors Track in Orthopedics (Orthotrack) with 12 places available (Annex B);
- Honors Track in Emergency and Intensive Care Medicine with 8 places available (Annex C);
- Honors Track in Allergy and Clinical Immunology (Immunotrack) with 3 places available for Medical Students enrolled in the 4th year and 1 place for the MEDTEC students enrolled in the 5th year (Annex D)
- Honors Track in Surgery (Surgerytrack) with 12 places available (Annex E);
- Honors Track in Global and Occupational Health (GOH) with 6 places available (Annex F).
- Honors Track in Pathology with 7 places available (Annex G)

Each student can apply for a maximum of two tracks but will have to choose only one track if selected for both.

Honors Tracks are activated with a minimum number of students, defined per track (see Annexes).

Art. 3 Eligibility requirements

Only candidates meeting the following requirements will be considered for the selection:

- Being enrolled for the first time in the 4th year of the Degree program in Medicine and Surgery or Medtec; Only for Medtec students interested in the track in Allergy and Clinical Immunology (Immunotrack) being enrolled in the 5th year,
- Having completed all the exams of the study plan up to the semester prior to the application (i.e. 1st semester 2023-2024);
- Having attended all the OSCE exams according to your study plan.
- Having obtained a positive evaluation in the professionalizing activities up to the previous semester related to the application (minimum score allowed is 1 for medical students);
- Having obtained a weighted average grade of at least 25/30;
- Having submitted a motivation letter supporting the reasons for attending the specific track. Students who apply for two tracks must submit two separate motivation letters to be considered for each track.

- Having not participated in the Erasmus and Virgilio Program.

Art. 4 Selection criteria and ranking

MEDICAL STUDENTS

Students will also be selected with the aim of ensuring a multicultural and international environment within each track. To this purpose and considering the student population of the medical school cohorts, available places will be assigned divided between to NON EU students (not holding Italian citizenship) and EU students.

After the selection, two ranking lists will be generated for each track, a ranking for the Italian students and one for the international students.

Med school	PLACES	EU	Non EU
EMERGENCY	5	3	2
ONCO	8	5	3
ORTHO	8	5	3
SURGERY	9	6	3
IMMUNO	3	2	1
GOH	4	3	1
PATHOLOGY	4	3	1
TOTAL NUMBER	41	27	14

MEDTEC SCHOOL

The places available for Medtec students are as follows. One ranking list will be defined for Medtec students.

Medtec school	PLACES
EMERGENCY	3
ONCO	4
ORTHO	4
SURGERY	3
IMMUNO	1
GOH	2
PATHOLOGY	3
TOTAL NUMBER	20

RANKING LIST

The ranking lists will be generated on the basis of the scores achieved following rules reported in Table 1 for Medicine and in Table 2 for MEDTEC.

Table 1 MEDICINE

Eligibility requirements	Score Calculation
Weighted average of grades*	$[(\text{Avg. grade} - 25)/(30 - 25)] * 40$
Average grade of professionalizing activity MEDICINE	$[(\text{Avg. score} - 1)/(3 - 1)] * 40$
Evaluation of motivation letter	From 0 to 20 points (to be assessed by the Selecting Committee)

*Considered with two decimal digits

Table 2 MEDTEC

Eligibility requirements	Score Calculation
Weighted average of grades*	$[(\text{Avg. grade} - 25)/(30 - 25)] * 40$
Average grade of professionalizing activity MEDTEC	$[(\text{Avg. grade} - 25)/(30 - 25)] * 40$
Evaluation of motivation letter	From 0 to 20 points (to be assessed by the Selecting Committee)

*Considered with two decimal digits

The highest achievable score is 100 points.

If applicants achieve the same final score, the higher weighted average of grades will prevail. In case of a further equal score candidates will be interviewed by the Selection Commission for the final selection.

Art. 5 Selection Commission

The selection commission of each track will consist of the coordinator/s and of two components chosen from among the faculty members and the tutors from the track.

Art. 6 Application for the selection procedure: deadlines and modalities

The application for the selection procedure must be completed exclusively online through the link www.hunimed.eu/honors-tracks/ from March 8th to March 25th 2024.

Application will only be accepted if the above-mentioned application procedure is followed.

Art. 7 Publication of the ranking list

The ranking lists will be published on April 8th on the LMS page of the 4th and 5th year of the Medical School and Medtec School.

Students entitled to participate in the HT should confirm their interest to join the program by e-mail to: honorstracks@hunimed.eu by April 11th.

In case of candidates' withdrawal, based on the ranking and according to the number of available places, the University will begin the admission of candidates in the reserve list.

Art. 8 Rules of attendance

Track duration times may vary according to the specific programmes. To proceed from one section of the track to the next, students must have attended at least 90% of the activities and correctly and timely completing the Learning Diary- Rotation and Clinical Rotations booklets. The Learning Diary - and Clinical Rotations booklets should be completed within one week form the completion of the relative activity.

Annex A HONORS TRACK IN ONCOLOGY

Rimassa Lorenza, Scorsetti Marta

Purpose and objectives

The purpose of the track is to provide students with an in-depth knowledge of the diagnostic and therapeutic approach to the most relevant solid tumors. The track also aims at helping students to discover their aptitude for oncology and related fields of interest.

Organization

The track will be organized as follows:

- Intensive period one: 2 weeks during the summer of the fourth year (8-12 July and 09-13 September 2024).
- One weekly activity over the two semesters of the fifth year.
- Intensive period two: 1 week during the winter of the fifth year (January 2025).

At the end of the track, students will have acquired 10 formative credits (10 CFU/ECTS) that will be certified on the Diploma Supplement.

Type of activities

During the intensive periods students will be exposed to different areas of the Cancer Center participating in the following type of activities:

- Seminars
- Clinical case discussions
- Multidisciplinary meetings
- Journal clubs
- Outpatient clinics
- In-patient clinics
- Simulation labs.

During the 1st and 2nd semesters of the fifth year, students will be asked to participate in weekly 1-hour meetings/journal clubs. Students must attend at least 10 of these events.

During the Honors Track, students must fill in a daily diary of the activities including reflections, questions, and take-home messages. At the end of each intensive period the students must ensure that their diary is signed by their tutor and delivered to the coordinator of the Honors Track.

Assistance and guidance for students

Each student selected for this Honors Track will be entrusted to a tutor in Medical Oncology and one in Radiotherapy for assistance and guidance during the activities.

The contact email for administrative issues is honorstracks@hunimed.eu.

Learning objectives

Knowledge and understanding

- General overview of Medical Oncology and Radiotherapy: illustrate the clinical approach to cancer patients, the importance of the multidisciplinary approach, and of personalized medicine.
- Breast, lung, colon, and prostate cancer: the big killers. Describe the clinical presentation, radiological, pathological aspects, and treatment. Discuss clinical trials and published papers.
- Difficult communication and conversations: discuss the importance of the psycho-oncologist in the patient journey from diagnosis to treatment and prognosis.
- From theory to clinical practice: from basic clinical activities of the Cancer Center to advanced clinical activities, including discussion of complex cases, management of emergencies in oncology, and diagnostic/therapeutic procedures (e.g. biopsy, thoracentesis, paracentesis).

Application of knowledge and understanding

By the end of the course the student will be able to:

- Describe the pathognomonic signs and symptoms of the most relevant solid tumors, including breast, lung, colorectal and prostate cancer.
- Produce a differential diagnosis according to identified signs and symptoms; choose the correct diagnostic imaging work-up and bioptic procedures in order to obtain the proper diagnosis.
- Illustrate the main oncologic and radiotherapy treatments for each discussed tumor, from the mechanisms of action to the different therapeutic aims.

- Learn how to communicate with an oncologic patient, with a particular focus on difficult situations including disease progression and poor prognosis.

Assessment

At the end of the first and second intensive period students will be evaluated on:

Professionalism: overall professional behaviour during the period considering attendance, readiness, punctuality, diary completion...)

- Knowledge acquired: discussion of clinical cases
- Progression from the first intensive period to the rest of the track will be based on successfully passing the first evaluation.

Activation of the Track

This Honors Track will be activated with a minimum number of 5 students. A maximum of 12 students will be selected per edition.

Annex B HONORS TRACK IN ORTHOPAEDICS

Di Matteo Berardo, Loppini Mattia

Purpose and objectives

Knowledge acquired during the Honors Track in Orthopaedics is essential to gain an overview of orthopaedic practice, understand the differences among orthopaedic sub-specialties, and provide a solid basis to aspire to residency programs in any of these sub-specialties. The course should help the students to understand their aptitude for surgical practice and their main field of interest among different orthopaedic fields.

Organization

The track will be organized as follows:

1. Intensive period one: 2 weeks during the summer of the fourth year, as follows: August 26th-September 6th 2024.
2. One monthly activity over the two semesters of the fifth year
3. Intensive period two: 1 week during the winter of the fifth year
4. Intensive period three: 2 weeks during the summer of the fifth year

Each year, the students must rotate in different orthopaedic sub-specialties, attend in-class lectures, attend simulation activities.

Types of activities

During the intensive periods students will be exposed to the different surgical areas participating in the following type of activities:

- Operating theatre
- Seminars
- Clinical case discussions
- Simulation.

In total, the student is required to carry out a five-week surgical clinical rotation made available by the University. Students will be exposed to the following surgical areas: Hip Surgery, Knee Surgery, Hand Surgery, Shoulder and Elbow Surgery, Trauma Surgery.

During the clinical rotations, the student will be supervised by a tutor and will be required to fill in a

weekly diary on a daily basis, including reflections, questions, and take-home messages.

At the end of this period the students must ensure that the diary is signed by their tutor and delivered to the coordinator of the track.

Assistance and guidance for students

Each student selected for this Honors Track will be entrusted to a tutor for each intensive period for assistance and guidance during the activities.

The contact email for administrative issues is honorstracks@hunimed.eu.

Learning objectives

Knowledge and understanding

By the end of the course the student will acquire the following knowledge:

- Main features of the surgical theatre (open versus arthroscopic surgery set-up)
- Most-frequently used equipment and devices of the surgical theatre and of their basic functioning
- Protocols for the perioperative management of orthopaedic patients
- Risks of the surgical context (infection, physical, and chemical agents)
- Quality and medical-legal principles in orthopaedics
- Basic surgical skills in different orthopaedic sub-specializations
- Principles of management of basic traumas in an ER setting, including closed reduction and plaster positioning.

Application of knowledge and understanding

By the end of the course the student will be able to:

- Prepare a sterile surgical field, including hand washing, dressing, and draping.
- Perform surgical sutures and wound dressing.
- Identify different surgical tools and choose the most adequate one for basic procedures.
- Perform basic movements during a minimally invasive procedure (arthroscopy and, if available, robotic procedures).
- Perform some surgery-related invasive maneuvers, i.e. intra-articular injections, braces, plasters and simple wound sutures.

- Interpret the commonest imaging modalities in orthopedic patients.

Assessment

At the end of the first intensive period students will be evaluated on:

- Professionalism: overall professional behaviour during the period considering attendance, readiness, punctuality, diary completion)
- Knowledge acquired: discussion of clinical cases.

Progression from the first intensive period to the rest of the track will be based on successfully passing the first evaluation.

Activation of the Path

This Honors Track will be activated with a minimum number of 6 students. A maximum of 12 students will be selected per edition.

Annex C HONORS TRACK IN EMERGENCY AND INTENSIVE CARE MEDICINE

Furlan Raffaello, Greco Massimiliano

Purpose and objectives

Knowledge acquired during the Honors Track in **Emergency and Intensive Care Medicine (EICMe)** is essential to gain an overview of emergency practice, understand the differences between the specialties of Emergency Medicine and Intensive Care Medicine, and provide a solid bases for an aspiring future resident in both Emergency Medicine and Intensive Care Medicine. The course should help the students to understand their attitude for clinical emergencies management.

Prerequisite for application

Students are required to have completed the 4th year exams and practical activities.

Organization

The track will be organized as follows:

- **ED (Emergency Department)-Emergency Medicine:** 4 weeks, 6 hours/day per 5 days/week+ 2 night-shifts, as follows: July 22th – August 2th; September 2th – September 13th 2024
- July-August (5thyear) **in Intensive Care** : 4 weeks, 6 hours/day per 5 days/week+ 2 night-shifts
- December-February (6thyear) **in ED-Emergency Medicine or Intensive Care:** 2 weeks, 6 hours/day per 5 days/week

Types of activities

During each period students will be exposed to the ordinary ward clinical activities.

In addition, during the last four semester of Humanitas Medical School they will attend different lectures and more specific practical activities as follows:

- Students will be partially embedded into the induction program for Residents attending the 2nd year of the Intensive Care Medicine Residency program
- Students will be partially embedded into the induction program for Residents attending the 1st year of the Emergency Medicine Residency program
- Emergency medicine procedures in the Simulation Centre, as follows:

- BLS/D
- Mask ventilation
- Laryngeal mask positioning
- Radial artery positioning using the Seldinger technique.

In total, the student is required to carry out a ten-week clinical rotation made available by the University. During the clinical rotations, the student will be supervised by a tutor and will be required to fill in a weekly diary on a daily basis, including reflections, questions, and take-home messages.

At the end of this period students must ensure that the diary is signed by their tutor and delivered to the coordinator of the track.

Facilities

The EICMe Honors track will take place in the following Hospitals facilities:

- Humanitas Rozzano
- Gavazzeni Bergamo
- Hospital Mater Domini Castellanza (VA)

Assistance and guidance for students

Each student selected for the *EICMe* will be entrusted to a tutor for assistance and guidance during the activities. The contact email for administrative issues is honorstracks@hunimed.eu.

Learning objectives

Knowledge and understanding

By the end of the track the student will acquire adequate knowledge about:

- Main features and organization of the ED - Emergency Medicine and Intensive Care Medicine wards (e.g., architectural, functional, ...).
- Basic functioning of the most-frequently used equipment and devices in the aforementioned wards
- Clinical Protocols of critical patients followed in the aforementioned wards.
- Principles of management of medical emergencies in the ED and in the Intensive Care Unit.

Activities for application of knowledge and understanding

By the end of the ***ED and Emergency Medicine*** track the student will be able to:

- Perform standalone readings of at least 5 normal and 11 pathological ECG, signed by their tutor
- Perform standalone readings of 5 normal and 11 abnormal chest x-Ray, signed by their tutor
 - Obtain 10 standalone arterial sampling for blood gas evaluation, interpret results and clinical implications under the supervision of their tutor.
 - The student will be fully acquainted with the risk management and procedures of the ED.

By the end of the ***Intensive Care Medicine*** track the student will be able to:

- Understand the different etiology and pathophysiology of various types of shock and prepare a case report to be discussed with their tutor.
- Address the non-invasive ventilation principles by following one cPAP and one NIV clinical case
- Take part in an inpatient emergency management
- Interpret the Early Warning Score (EWS) parameters
- Take part in an intubation manoeuvre and discuss intubation indications with their tutor.
- Take part in a central venous catheter (CVC) placement and be aware of the indication for CVC setting.
- Obtain 10 standalone arterial sampling for blood gas evaluation, interpret results and clinical implications under the supervision of their tutor.
- Perform standalone readings of 1 normal and 3 abnormal chest CT scan, signed by their tutor
- The student will be fully acquainted with risk management, procedures and organization of the Intensive Care ward.

Assessment

At the end of the track, the student will be evaluated on:

- Professionalism: overall professional behaviour during the period considering attendance, readiness, punctuality, diary completion...)
- Knowledge acquired: discussion of clinical cases

Activation of the Path

The EICMe will be activated with a minimum number of 4 students/year. A maximum of 8 students will be selected per edition.

Annex D HONORS TRACK IN ALLERGY AND CLINICAL IMMUNOLOGY (IMMUNOTRACK)

Hefler Enrico Marco, Selmi Carlo Francesco

Purpose and objectives

The knowledge acquired during the Honors Track in Allergy and Clinical Immunology is intended to allow the students to understand how the major allergic and immuno-rheumatological diseases are diagnosed and managed and to provide tools for continuous scientific update through the literature. The course should help the students understand their vocation towards the practice of allergy and clinical immunology.

Organization

The track will be organized as follows:

- Intensive period #1: 2 weeks during the summer of the fourth year for medical students, and of the 5th year for Medtec students (in the Allergy Unit and Rheumatology Unit). As follows: 15-26th of July 2024
- One monthly lecture/seminar on trending topics over the two semesters of the fifth year
- One bimonthly assignment for independent student work and subsequent evaluation during the two semesters of the fifth year
- Two activities at the Simulation Center during the two semesters of the fifth year
- Participation at two scientific events (one about Allergy, and one about Rheumatology) during the two semesters of the fifth year
- Intensive period #2: 2 weeks during the summer of the fifth year for medical students (at the Allergy Unit and Rheumatology Unit) and before the graduation for Medtec students.

Each year, the students will be required to attend all proposed clinical activities, in-class lectures/seminars/journal clubs/scientific events, and attend simulation activities.

Types of activities

During the intensive periods students will participate in Allergy and Clinical Immunology/Rheumatology activities:

- Outpatient clinics

- Seminars/Lectures
- Journal Clubs
- Scientific events
- Simulation

In total, the student is required to carry out a four-week clinical rotation at the Allergy and the Clinical Immunology/Rheumatology units made available by the University. During the clinical rotations, the student will be supervised by a tutor and will complete a weekly diary on a daily basis, including reflections, questions, and take-home messages. At the end of this period the students will ensure that the diary is signed by their tutor and delivered to the coordinator of the track.

Assistance and guidance for students

Each student selected for this Honors Track will be assigned to a tutor for each intensive period for assistance and guidance during the activities. The contact email for administrative issues is honorstracks@hunimed.eu.

Learning objectives

Knowledge and understanding

By the end of the course the student will acquire the following knowledge:

- Diagnostic procedures and guidelines for allergic and clinical immunological/rheumatological diseases.
- Phenotypic characterization and treatment of main allergic and clinical immunological/rheumatological diseases.
- Novel therapeutic approaches to allergic and clinical immunological/rheumatological diseases.
- Principles of management of allergic and immunological/rheumatological emergencies.
- Multidisciplinary approach to the main allergological and immunological/rheumatological diseases.
- Principles of clinical trials participation in allergy, clinical immunology and rheumatology
- Principles of translational clinical and research in allergy, clinical immunology and rheumatology

Application of knowledge and understanding

By the end of the course the student will be able to:

- Identify the clinical features of the main allergic and clinical immunological/rheumatological diseases.
- Understand and critically evaluate the phenotypic characterization of the main allergic and clinical immunological/rheumatological diseases.
- Perform and interpret the main diagnostics tests in allergy, clinical immunology and rheumatology
- Understand the process to decide the most suitable treatment (including biological and other innovative drugs) for each single patient affected by main allergic and clinical immunological/rheumatological diseases.
- Actively collaborate in clinical trials.
- Actively participate in clinical and translational research projects.
- Write and critically revise scientific articles.

Assessment

At the end of the first intensive period students will be evaluated on:

- Professionalism: overall professional behaviour during the period considering attendance, readiness, punctuality, diary completion, and critical interaction with physicians and scientists;
- Knowledge acquired: discussion of clinical cases;

Progression from the first intensive period to the rest of the track will be based on successfully passing the first evaluation.

Activation of the Path

This Honors Track will be activated with a minimum number of 2 students. A maximum of 4 students will be selected per edition.

Annex E HONORS TRACK IN SURGERY

Civilini Efrem, Viganò Luca

Purpose and objectives

Knowledge acquired during the Honors Track in Surgery is essential to gain an overview of surgical practice, understand the differences among surgical specialties, and provide a solid bases for aspiring future residents in in any surgical specialty. The course should help the students to understand their aptitude for surgical practice and the main field of interest among different surgical specialties.

Organization

The track will be organized as follows:

- Intensive period one: 2 weeks during the summer of the fourth year : September 2nd -September 13th 2024
- One monthly activity over the two semesters of the fifth year
- Intensive period two: 1 week during the winter of the fifth year
- Intensive period three: 2 weeks during the summer of the fifth year.

Each year, the students must rotate in different surgical areas, attend frontal lectures, attend simulation activities.

Types of activities

During the intensive periods students will be exposed to the different surgical areas participating in the following type of activities:

- Operating theatre
- Seminars
- Clinical case discussions
- Simulation.

In total, the student is required to carry out a five-week surgical clinical rotation made available by the University. Students will be exposed to the following surgical areas: General surgery, Cardiovascular surgery, Thoracic surgery, Urology, Otorhinolaryngology, and Neurosurgery

During the clinical rotations, the student will be supervised by a tutor and will be required to fill in a

weekly diary on a daily basis including reflections, questions, and take-home messages.

At the end of this period the students must ensure that the diary is signed by their tutor and delivered to the coordinator of the track.

Assistance and guidance for students

Each student selected for this Honors Track will be entrusted to a tutor for each intensive period for assistance and guidance during the activities.

The contact email for administrative issues is honorstracks@hunimed.eu

Learning objectives

Knowledge and understanding

By the end of the course the student will acquire the following knowledge:

- Main features of the surgical theatre (e.g., architectural, functional,...).
- Most-frequently used equipment and devices of the surgical theatre and of their basic functioning.
- Protocols for the perioperative management of surgical patients.
- Risks of the surgical context (infectious, physical, and chemical agents).
- Quality and medical-legal principles in surgery.
- Basic surgical skills in different surgical specializations.
- Principles of management of surgical emergencies.

Application of knowledge and understanding

By the end of the course the student will be able to:

- Prepare a sterile surgical field, including hand washing, dressing, and draping.
- Perform surgical sutures and wound dressing.
- Identify different surgical tools and choose the most adequate one for basic procedures.
- Perform basic movements during a minimally invasive procedure (laparoscopic and, if available, robotic procedures).
- Perform basic explorative ultrasound.

- Perform some surgery-related invasive maneuvers, i.e., nasogastric tube and urinary catheter positioning, and vascular accesses.
- Interpret the commonest imaging modalities in surgical patients.

Assessment

At the end of the first intensive period students will be evaluated on:

- Professionalism: overall professional behaviour during the period considering attendance, readiness, punctuality, diary completion...)
- Knowledge acquired: discussion of clinical cases

Progression from the first intensive period to the rest of the track will be based on successfully passing the first evaluation.

Activation of the Path

This Honors Track will be activated with a minimum number of 6 students. A maximum of 12 students will be selected per edition.

Annex F HONORS TRACK IN GLOBAL AND OCCUPATIONAL HEALTH (GOH)

Barbic Franca, Riboli Elio, Stranges Saverio

Purpose and objectives

Global Health is a rapidly evolving interdisciplinary field based on systems science approaches to study, research and practice applied to health and disease conditions in a global perspective. The current pandemic as well as the increasing interest for the potential consequences of climate changes in different parts of the globe, have further emphasized the interconnected nature of our societies and the need to focus on social and environmental determinants of health. These aspects are crucial to understand and tackle the complex issues we face as physicians, scientists, health professionals and citizens in our modern societies. In this context, also the role of occupational health is changing and is becoming strictly related to the other disciplines.



The Figure 1: relationships between changes in global climate and risk for global health.

The new generation of physicians will have to embrace global perspectives in their clinical routine, hence there is a need to incorporate global and environmental, including occupational health contents in the medical training at all stages, from the undergraduate years to the residency programs. Emerging global health issues such as the current pandemic and **Climate Change** are likely to cause long-term

health implications to individuals, workers, and communities, which will warrant novel approaches and a wider set of skills in the next generations of physicians and health professionals. Future physicians will deal with heterogeneous groups of patients, with diverse ethnic and social backgrounds, which will require greater knowledge on the above issues. In addition, the concept of **One Health** focusing on the interplay between human and animal health as well as on the influence of the physical and social environment on health outcomes is becoming a critical pillar in the field of Global Health.

The proposed Honors Track (HT) aims to provide students with an overview of the global epidemiology, including occupational epidemiology, preventive options, public health policies for some of the major infectious and chronic non-communicable diseases that are the leading causes of death and disability in Italy and globally. Students will learn measures of disease burden applied at the individual and population levels, including cost of illness, years of life lost due to mortality, and health adjusted life years. The effects of social, environmental and occupational determinants of health are emphasized. Key methodological considerations for the execution or interpretation of studies of each disease will be highlighted. The Honors track will be entirely organized based on a **case-based methodology**, with the selection of global health cases which will be discussed with the instructors at the onset of the program. Target: 6 students who have completed the courses of the 4th Year of Medical School or MEDTEC at Humanitas University, Pieve Emanuele, Milan, Italy. The HT will end by the end of September 2025.

Organization

The track will be organized as follows:

5. Workshop (2-hours in June) at the end of 4th Year course to meet the selected students, introduce the contents and structure of the HT.
6. Intensive period of formal training focusing on case-based learning #1:1 week (4 hours/day) in September 23th-27th, 2024 during lunch and late afternoon.
7. Bimonthly lecture/seminar (2 hours) during the two semesters of the fifth year.
8. Monthly discussion on the progression of the work on the individual case chosen by the student.
9. Participation in one scientific event in the area of Global Health, Environmental Health, Occupational and Public Health during the two semesters of the fifth year. Namely the two suggested conferences will be: the European Public Health Annual Conference and the International Congress on Occupational Health.

10. Intensive period #2 abroad: 4 weeks during the summer of the fifth year to be spent in one of the suggested academic institutions, including the Western University in London, Ontario, Canada, Affiliate Joint Clinical Research Centre in Kampala (<https://jcrc.org.ug/>)

Each year, the students will be required to attend all proposed activities, frontal lectures/seminars/journal clubs/scientific events.

Possible Hubs at Western University and Uganda:

At Western University, London, Ontario Canada:

1. Epidemiology and Biostatistics Department
2. Africa Institute (<https://www.uwo.ca/africainstitute/index.html>)
3. Climate Change, Sustainable Livelihoods and Health, (<https://nest.uwo.ca/climatecentre/>).
4. Affiliate Joint Clinical Research Centre in Kampala (<https://jcrc.org.ug/>)
5. Biomedical frugal innovation centre

Types of activities

During the intensive periods students will participate to the following activities:

- Case-based learning and student-led small team discussions (entire program)
- Workshop
- Intensive periods on site (1 week) and abroad (3 weeks)
- Seminars/Lectures
- Journal Clubs
- Scientific events

During this intensive program, the student will be supervised by a tutor and will complete a weekly diary including reflections, questions, and take-home messages.

Assistance and guidance for students

Each student selected for the Honors Track in **GOH** will be assigned to a tutor for each intensive period for assistance and guidance during the activities. The contact email for administrative issues is honorstracks@hunimed.eu

Learning objectives

Knowledge and understanding

By the end of the course the student will acquire the following set of skills and knowledge:

- Describe the epidemiological characteristics and relative impact of major infectious and chronic non-communicable diseases including the emerging occupational diseases, both nationally and globally and their relationship with the broader social and environmental context.
- Explain approaches to the prevention and control of these diseases from a public health perspective, including health promotion programs both in community settings and workplace.
- Identify methodological challenges associated with epidemiological studies of each condition.

Application of knowledge and understanding

By the end of the course the student will be able to:

- Identify the clinical and public health relevance and application of global health cases, including the role of the environmental characteristics and occupational exposures to the potential field of specialization.
- Writing a final thesis based on the selected case, which may include publication of scientific articles.

Assessment

At the end of each semester students will be evaluated based on:

- Professionalism: overall professional behaviour during the period considering attendance, readiness, punctuality, diary completion, and critical interaction with peers and instructors.
- Knowledge acquired: discussion on cases and results of the independent student work.

Activation of the Path

The (HT-GOH) will be activated with a minimum number of 3 students. The maximum number of students selected is 6 per edition.

Annex G HONORS TRACK IN PATHOLOGY

Silvia Uccella

Purpose and objectives

The Honors Track in Pathology is aimed to give students an overview of the multifaceted world of a Pathology Department transcending the boundaries of traditional coursework, offering an exploration of pathology from both clinical and research point of view. The student will understand how the pathologist integrate the disparate pieces of the puzzle – clinical information, macroscopic, microscopic, and molecular analyses – to render a meaningful pathological diagnosis for the patients. In addition, students will understand the opportunities of translational research starting from tissue samples. This Honor Track will provide a solid base for both future residents in Pathology and for students who want to approach any other specialty, being aware of the implications of a pathological report and of the key role of the pathologist in the multidisciplinary management of the patient

Organization

The track will be organized as follows:

- Initial intensive period: 2 weeks during the summer of the fourth year: August 26th - September 6th 2024
- One monthly activity over the two semesters of the fifth year
- Middle intensive period: 1 week during the winter of the fifth year
- Final intensive period: 2 weeks during the summer of the fifth year.

Each year, the students must rotate in different subspecialties of Pathology, attend frontal lectures, attend autoptic activity and intraoperative examinations (frozen sections).

Types of activities

During the intensive periods students will be exposed to the different surgical areas participating in the following type of activities:

- Diagnostic activity with examination of glass/digital slides (histology and cytology)
- Macroscopical examination and autopsies

- Molecular pathology and laboratory of Precision Medicine
- Seminars and clinical cases discussion
- Participation to multidisciplinary tumor boards (MTB)

In total, the student is required to carry out a five-week rotation in the Pathology Dept. Students will be exposed to the following pathology subspecialties: breast pathology, endocrine pathology, uropathology, digestive pathology, hematopathology, liver pathology, pathology of soft tissues and bone, dermatopathology, pulmonary pathology, autoptic pathology, cytopathology. In addition, a rotation in the Precision Medicine lab will be available.

During the rotations, the student will be supervised by a tutor and will be required to fill in a weekly diary on a daily basis including reflections, questions, and take-home messages.

At the end of this period the students must ensure that the diary is signed by their tutor and delivered to the coordinator of the track.

Assistance and guidance for students

Each student selected for the HTS will be entrusted to a tutor for each intensive period for assistance and guidance during the activities.

The contact email for administrative issues is honortracks@hunimed.eu.

Learning objectives

Knowledge and understanding

By the end of the course the student will acquire the following knowledge:

- Knowing methods and technologies for pathological examination of specimens.
- Being aware of the role of the pathologist in the MTB.
- Learning the basic macroscopic and microscopic features of neoplastic and non-neoplastic disease
- Learning how to interpret a pathological report
- Understanding the indication of intraoperative examinations and autopsy
- Understanding the role of immunohistochemistry for diagnostic, predictive, and prognostic purposes
- Understanding the role of molecular

Application of knowledge and understanding

By the end of the course the student will be able to:

- Autonomously recognize basic histological patterns (normal Vs neoplastic; inflammatory infiltrate)
- Autonomously recognize macroscopic features of tumors
- Interpret clinico-pathological correlations at autopsy
- Conceive a clinico-pathological research study

Assessment

At the end of the first intensive period students will be evaluated on:

- Professionalism: overall professional behaviour during the period considering attendance, readiness, punctuality, diary completion...)
- Knowledge acquired: discussion of clinical cases

Progression from the first intensive period to the rest of the track will be based on successfully passing the first evaluation.

Activation of the Path

This Honors Track will be activated with a minimum number of 1 student. A maximum of 7 students will be selected per edition.