

CALL FOR APPLICATIONS FOR HONORS TRACKS 2021/2022

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Art. 1 Purpose and Objectives

1. Humanitas University offers its students the opportunity to acquire additional knowledge, skills, and competences in a chosen area to interested and motivated students by activating a program of “Honors Tracks” (HTs). The tracks chosen to be activated are based on the specialist medical areas (residencies and centers) of the University and associated hospitals as well as on topics of special relevance to global health issues, primary care and family medicine.
2. An additional purpose of HTs is to 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.

3. In activating the HTs, Humanitas University also takes into account the fact that access to postgraduate programs in many countries begins with an initial evaluation of a young doctor's curriculum vitae, therefore, making the acquisition of additional credits a valuable asset in the selection process.

Art. 2 Honors Tracks and number of places available

1. 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.
2. Tracks are intended for students from the third year onward, as determined specifically by each track.
3. 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.
4. 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.

For the academic year 2021/22 Humanitas University will activate the following Honors Tracks:

- Honors Track in Oncology (Oncotrack) with 10 places available (Annex A);
- Honors Track in Orthopedics (Orthotrack) with 10 places available (Annex B);
- Honors Track in Emergency and Intensive Care Medicine with 6 places available (Annex C);
- Honors Track in Allergy and Clinical Immunology (Immunotrack) with 4 places available (Annex D);
- Honors Track in Surgery (Surgerytrack) with 10 places available (Annex E).

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).

With the aim of ensuring a multicultural and international environment within each track a quota of 1/3 of the available places will be assigned to international students (not holding Italian citizenship).

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;
- Having completed all the exams of the study plan up to the semester prior to the application (i.e. 1st semester 2021-2022);
- Having obtained a positive evaluation in the professionalizing activities up to the previous semester related to the application (minimum score allowed is 1);
- 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.

Students are only eligible to apply to one extra curricular Hunimed programme with a selection process and where limited places are available. This regulation guarantees accessibility to such programmes to as many students as possible.

Art. 4 Selection criteria and ranking

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, a quota of 1/3 will be assigned to international students (not holding Italian citizenship).

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

The ranking lists will be generated assessing a score for the eligibility requirements as reported in Table 1.

Table 1

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

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, the 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 April 20th to April 29th 2022 at noon.

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 May 25th on the LMS page of the 4th year of the Medical School. Students entitled to participate in the HT should confirm their interest to join the program by e-mail to: honorstracks@hunimed.eu by May 27th.

Should one or more places become available on any of the ranking lists after the deadline of May 27th, students will be called in order of ranking from the reserve list of the relevant Track.

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 passed an intermediate evaluation related to professionalism and knowledge. Acquisition of the 10 credits is subject to a final evaluation and attainment of the degree title in Medicine and Surgery.

Annex A HONORS TRACK IN ONCOLOGY

Purpose and objectives

The purpose of the track is to provide students with and 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 (July 2022 – September 2022).
- One weekly activity over the two semesters of the fifth year.
- Intensive period two: 1 week during the winter of the fifth year (January 2023).

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 10 students will be selected per edition.

Annex B HONORS TRACK IN ORTHOPAEDICS

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
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 5 students. A maximum of 10 students will be selected per edition.

Annex C HONORS TRACK IN EMERGENCY AND INTENSIVE CARE MEDICINE

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:

- July-August (4thyear) **in ED (Emergency Department)-Emergency Medicine**: 4 weeks, 6 hours/day per 5 days/week+ 2 night-shifts
- 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)
- Hospital Gradenigo Torino

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 6 students will be selected per edition.

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

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 (in the Allergy Unit and Rheumatology Unit)
- 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 (at the Allergy Unit and Rheumatology Unit)

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

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
- 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 5 students. A maximum of 10 students will be selected per edition.