

DISCIPLINE SHEET**ACADEMIC YEAR****2022 - 2023****1. DATA ABOUT THE STUDY PROGRAM**

1.1 Institution of higher education	UNIVERSITY OF MEDICINE AND PHARMACY OF CRAIOVA
1.2 Faculty	MEDICINE
1.3 Department	7
1.4 Study Domain	HEALTH
1.5 Study cycle	LICENCE
1.6 Study program/ Qualification	MEDICINE

2. DATA ABOUT THE DISCIPLINE

2.1 DISCIPLINE NAME		EMERGENCY MEDICINE		
2.2. Discipline code		MED6211		
2.3 The holder of course activities		dr. ROTARU LUCIANA TEODORA, dr. FORTOFOIU MARIA, dr. GEORMANEANU CRISTIANA, dr. BĂNICIOIU-COVEI MIHAI		
2.4 The holder of seminar activities		dr. ROTARU LUCIANA TEODORA, dr. FORTOFOIU MARIA, dr. GEORMANEANU CRISTIANA, dr. BĂNICIOIU-COVEI MIHAI		
2.5. Academic degree		Associate Professor, Lecturer		
2.6. Employment (base norm/associate)		Base norm		
2.7. Year of study	VI	2.8. Semester	II	2.9. Course type (content) 2.10. Regime of discipline (compulsoriness)
				CSD

3. THE ESTIMATED TOTAL TIME (teaching hours per semester)

3.1 Number of hours per week	5	3.2 From which course	2	3.3 seminary/laboratory	3
3.4 Total hours in curriculum	70	3.5 From which course	28	3.6 seminary/laboratory	42
Time found distribution (hours)					
Study from manual, course support, bibliography, and notes					15
Additional documentation in the library, specialized electronic platforms and, on the field					10
Training seminars / labs, homework, reports, portfolios, and essays					10
Tutoring					5
Examinations					10
Other activities, counselling, student scientific programs					5
3.7 Total hours of individual study	55				
3.9 Total hours per semester	125				
3.10 Number of credits	5				

4. PREREQUISITES (where appropriate)

4.1 curriculum	Students must have a solid knowledge of Anatomy, Physiology, Pathophysiology, Semiology, Internal Medicine, Cardiology, Surgery
4.2 competency	-

5. CONDITIONS (where appropriate)

5.1. of course deployment	The lecture will take place online - lecture hall with projection possibility Simulation room / online mill / practical activity in the dispatching office Prior preparation, by individual study of the notions taught in the course Equipping and presentation according to the previous announcement for participation in practical activities carried out in the emergency dispatcher or simulator
5.2. of seminary/ lab deployment	-

6. SPECIFIC COMPETENCES ACCRUED

PROFESSIONAL COMPETENCES	C1 - Identify the state of the disease and establish the correct level of damage C2 - Design and application of an intervention plan appropriate to the identified impairments. C5 - To initiate and carry out a scientific and / or formative research activity in its field of competences C6 - Fulfilling in an efficient and effective way the tasks imposed by certain professional roles
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TRANSVERSAL COMPETENCES	<p>CT1. Autonomy and responsibility</p> <ul style="list-style-type: none"> the acquisition of moral reference points, the formation of professional and civic attitudes, that will allow to the students to be fair, honest, helpful, understanding, nonconflictual, to cooperate and to be comprehensive in the face of suffering, to be available to help people, and to be interested in community development; to know, to respect and to contribute to the development of moral values and professional ethics; to learn how to recognize the problems when they arise, and provide solutions for solving them. <p>CT2. Social interaction</p> <ul style="list-style-type: none"> to recognize and to have respect for diversity and multiculturalism; to have or to learn how to develop teamwork skills; to communicate orally and in writing the manner of work requirements, the obtained results, to consult with the team; to engage themselves in voluntary activities, to know the essential problems of the community. <p>CT3. Personal and professional development</p> <ul style="list-style-type: none"> to have opening to lifelong learning, to be aware for self-study as a basis of personal autonomy and professional development; to derive the optimum and creative potential in their own collective activities; to know how to use information and communication technologies.
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7. DISCIPLINE OBJECTIVES (based on the grid of specific competences acquired)

7.1 The general objective of the discipline	By approaching the European curriculum of the specialty, the discipline aims to develop 6th year students knowledge, skills and abilities in emergency care, able to facilitate their integration into work teams in hospital and prehospital emergency medicine and a proactive attitude in approaching patients in emergency situations
7.2 The specific objectives of the discipline	<p>During the study program is aimed at acquiring:</p> <ol style="list-style-type: none"> theoretical knowledge practical skills teamwork, cooperation and communication skills attitude <p>At the end of the study program, students must be able to:</p> <ol style="list-style-type: none"> theoretical knowledge <ul style="list-style-type: none"> define first aid intervention and emergency medical intervention to specify the differences between the different categories of crews operating in the pre-hospital stage of emergency interventions to define the tasks of the coordinating doctor in the emergency dispatcher presents the standard sequence of approaching a patient with significant deterioration of vital sign list the risks of rescuers to describe the main protection measures for rescuers and victims to list the principles of first aid and the ethical norms that govern this action to define the particularities of the emergency intervention in special situations to list the principles of intervention in situations with multiple victims to present the roles and tasks of the emergency doctor in the emergency action compile a list of priorities for the evacuation action in an extended event situation to specify the roles and principles of different types of sorting algorithms practical skills <ul style="list-style-type: none"> to perform the primary evaluation of the patient in maximum 30 seconds to identify the distress of vital functions to perform the secondary evaluation of a patient in emergency situations to initiate and sustain at least 15 minutes of basic life support for adults and children to decide and practice external automatic defibrillation to practice the Heimlich maneuver and the manual unblocking of the airways when sucking to decide and place a patient in a safe position to non-invasively monitor a critical patient to interpret the fundamental heart rhythms to interpret the basic parameters of oxygenation, ventilation and hemodynamics to achieve the temporary immobilization of the spine to temporarily immobilize the limbs to make temporary hemostasis in hemorrhages of arterial and venous cause at different lesion levels to identify the specific signs of intoxications Recognize major life-threatening post-traumatic stress syndromes

	<ul style="list-style-type: none"> • to practice immediate assistance measures in certain special situations • to sort in the field the patients resulting from an extended event • to transmit data through the telemedicine system • to perform the triage of 5 patients presented simultaneously in an urgent reception structure • choose the most appropriate means of escape for a critically ill patient <p>3. teamwork, cooperation and communication skills</p> <ul style="list-style-type: none"> • communicate with other teams or members of rescue teams • to take on tasks in an emergency medicine team • coordinate a resuscitation team • to report the data of an event • communicate effectively with patients and their relatives <p>4. attitudes</p> <ul style="list-style-type: none"> • to have respect for fundamental human principles and rights, including autonomy and the right to decide in an informed manner • to assume as a foundation of professional thinking, the law of the Samaritan good and the principle "primum non nocere" • to be open to the acquisition of moral landmarks, the formation of professional and civic attitudes • fair, honest, non-conflicting, cooperative, understanding in the face of suffering, available to help people interested in community development; • to know, respect and contribute to the development of moral values and professional ethics; • learn to recognize a problem when it arises and provide responsible solutions to solve it. • to assume responsibilities in the team, to fulfill them and to contribute to the integration of its actions in the unitary effort • recognize and respect diversity and multiculturalism; • to get involved in volunteer actions, to know the essential problems of the community. • be open to lifelong learning, • to be aware of the need for individual study as a basis for personal autonomy and professional development; • to capitalize optimally and creatively on their own potential in collective activities; • know how to use information and communication technology; • to have initiative, to get involved in educational and scientific activities of the discipline
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8. CONTENTS

8.1 Course (content units)	Hours
1. Introduction. Components of the National Integrated Management System of Emergency Situations in Romania. Emergency medical assistance. The risks of intervention lay. Principles of urgent work. Emergency team.	2
2. Primary and secondary assessment of adult, child and newborn. Alterations state of consciousness. Safety position.	2
3. Airway obstruction. Causes and types of airway obstruction. Signs of incomplete / complete airway obstruction. Basic airway opening maneuvers and techniques	2
4. Cardiopulmonary arrest. Survival chain in adults and children. Primary support of vital functions in adults and children with one or more rescuers. Early automatic external defibrillation. Advanced airway management - tracheal intubation, surgical airway. Cardiac arrest rhythms. Cardiac arrest medication Working algorithm in advanced cardiopulmonary and cerebral resuscitation	2
5. Special situations in resuscitation / Submersion accidents. Drowning. Anaphylaxis. Hypothermia. Pregnancy resuscitation - perimortem cesarean section	2
6. The main situations generating cardiorespiratory arrest. Major rhythm and conduction disorders of the heart Criteria of instability of major arrhythmias. Alert criteria for the resuscitation team. Urgent attitude. Cardioversion and cardiac pacing - patient preparation, equipment, stage security. Comele.Etiology. General gravity classification. Principles of valuation and management of commas. Seizures. Acute coronary syndromes. STEMI, N- STEMI. The dyspneic patient. acute pulmonary edema. Pulmonary embolism. Asthmatic status. Exacerbation of COPD. Shock states. Classification. Etiology. shock stages. Therapeutic approach	2
7. Generalities in the management of the traumatized patient Tactical principles of the polytrauma approach Classification of polytraumas Evolutionary peculiarities of polytraumas Evaluation of the accident scene. Trauma kinematics. Unloading and extrication Transfer of the polytraumatized patient - air, ground, preparation for evacuation, supervision during the transfer	2
8. Patient with cranial and facial trauma Particularities of craniocerebral and facial trauma. Types of caniocerebral traumas - cerebral contusions, hematomas intracranial, skull base injuries, facial trauma. Primary and secondary evaluation of the head trauma patient. Recognition of the severity elements of TCC. Emergency management in the hospital and UPU. Supervision of the patient with craniofacial trauma. Elements of patient direction. Signs of intracranial hypertension	2

9. Spinal injuries Particularities of vertebral and spinal injuries. Classification of spinal cord injuries. Primary and secondary evaluation of the patient with suspected vertebromedullary injury. Recognition of neurogenic and spinal shock. Immobilization of the cervical spine Emergency management in the hospital and UPU	2
10. The patient with chest trauma. Peculiarities in thoracic traumatology. Classification of thoracic trauma, rapidly fatal injuries in thoracic trauma, potentially fatal injuries in thoracic trauma, non-lethal injuries in thoracic trauma. Systematic approach to the patient with thoracic trauma in the prehospital and urgent reception structures. Tactics of imaging evaluation of the thoracic traumatized	2
11. Abdominal injuries. Major syndromes in abdominal trauma - internal hemorrhage, peritonitis, occlusion. Primary and secondary evaluation of the patient with abdominal trauma. Approaching the patient with abdominal trauma in the prehospital and hospital interface. Paraclinical evaluation of abdominal trauma. Decision elements of patient direction	2
12. Limb injuries. Limb amputations. Replanting. Crushing. Crush syndrome	2
13. Environmental emergencies	2
14. Mass accidents. Legislation and foundations of ethical principles in emergency medicine, Definitions, classification. The red plan and the white intervention plan in extended emergencies. Organizing the scene. Principles of command and control. Specific tasks in scene. Principles of triage of the traumatized at the accident site (field triage). Triage in PMA. Triage at evacuation Triage at UPU. Principles of evacuation. Communication with the patient and the patient's relatives. Consent. Ethics, deontology and legislation of personal data processing in urgent reception structures Death pronouncement. Announcing the bad news	2
TOTAL	
BIBLIOGRAPHY	
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2. Diana Carmen Preotu-Cimpoiesu (sub redactia)...L.Rotaru (autor capitol 3 - Algoritm de evaluare si management al pacientului traumatizat) .Ghiduri si algoritmi in medicina de urgenta - Note de curs 2019.Editura Gr. T. Popa, U.M.F. Iasi. ISBN: 978-606-544-626-7. Editura Gr. T. Popa. (U.M.F Iasi). 2019.	
3. Alina Petrică, Hajnal Vass, H.L. Borcea (sub redacția)... Luciana Rotaru. Protocolul Național de Triaj – versiunea 2. Ghid de implementare. ISBN. 978-606-93972-2-0. 2016. Ed Etnos, Bucuresti.	
4. F. Ghelase, D. Mercut. Chirurgie – vol. I – Propedeutica si tehnici de baza - ISBN 978-606-11-2437-4, Editura Sitech. Craiova, 2012	
5. Luciana Rotaru, Cristiana Geormaneanu, Adrian Rotaru. Nursing clinic de urgenta si prim ajutor. Editura medicală universitară Craiova 2008. ISBN 978-973-106-102-3	
6. Tintinalli J.E (Editor principal), Stapczynski J. S. O.J. Ma, D.M. Yealy, G.D. Meckler, D.M. Cline (Editori). Tintinalli's Emergency Medicine: A Comprehensive Study Guide 8th edition By McGraw-Hill Professional, 2016. 2 volume ISBN 978-606-93972-4-4. Vol I– ISBN 978-606-93972-5-1, Vol. II ISBN 978-606-93972-6-8. traducere autorizata. Ed. Etnos. Bucuresti. 2016	
R.Arafat, Hajnal E. Vass, Cristian M. Boeriu. Primul ajutor calificat (ed.a II a). Urgențe medicale: infecțioase, toxicologice, psihiatrice, metabolice, reacții alergice. ISBN. 978-606-93972-3-7. Ed. Etnos. București. 2016	
8.2 Practical work (topics / themes)	
1. Introduction to the technique of first aid. The risks of rescuers. Universal precautions - online	3
2. Emergency dispatcher. Types of means of intervention. Ambulances type C1, C2, B1, B2 (with assistant), B2 - first aid crews. Non-critical patient transport - ambulances type A1, A2. Principles of triage of the injured at the scene of the accident (field triage protocol) START). Triage at evacuation. Data transmission through the telemedicine system to hospitals and between hospitals. Principles of evacuation and transport of the traumatized patient. Medical triage in UPU (door triage, principles, procedure, allocation of patients by work areas.- online	3
3. The protocol and the triage procedure of the patients in the emergency reception structures. Emergency codes. Severity assessment. Resource evaluation. Triage monitoring. Time waiting. Reevaluation in triage. FAST TRACK - online	3
4. Primary and secondary assessment of adult and child. Alterations of consciousness. Safety position - simulator - work on mannequins	3
5. Airway obstruction. - simulator - work on mannequins - Causes and types of airway obstruction. Signs of incomplete airway obstruction. Signs of complete airway obstruction. Basic maneuvers and techniques in opening the airway (Saffar triple maneuver, Esmarck maneuver, aspiration, oropharyngeal pipe, balloon and mask ventilation, combitubulus, laryngeal mask, I gel). Advanced maneuvers and techniques for opening the airway - tracheal intubation, cricothyroidotomy, tracheostomy of necessity. Heimlich maneuver and modified Heimlich. Obstructed airway in infants - peculiarities	3
6. Cardiopulmonary arrest - simulator - work on mannequins	3
7. Complete patient monitoring - pulse oximetry, electrical monitoring of heart, electrocardiogram, capnometry, blood glucose determination, Glasgow score- online	3
8. Oxygen administration techniques. Free flow oxygen administration, oxygen mask, oxygen tent, oxygen mask with auxiliary tank, Balloon and mask ventilation, noninvasive ventilation - devices, patient preparation and supervision, mechanical ventilation - simulator - work on mannequins	3

9. Vascular access. Preparation of materials and patient for central venous access and peripheral, intraosseous access, umbilical access, arterial access - simulator - work on mannequins	3
10. The traumatized patient - generalities, precautions and limits of secular intervention. Chain survival in trauma. Cervical spine protection - manual technique, cervical collars, rigid stretcher, back board, scoop stretcher - stretcher, vacuum stretcher. Traumatized patient mobilization (KED - Kendrick Extrication Device, Rauteck maneuver, patient return) - simulator, mannequin work	3
11. Approaching the patient with thoracic trauma - online, clinical cases. Patient positioning. The 6 rapidly lethal injuries in chest trauma (identification - emergency first aid: exhalation, 3-sided dressing, immobilization of the costal flap). Potentially fatal injuries in chest trauma (identification). Non-lethal injuries in chest trauma (identification).	3
12. First aid for the hemorrhagic patient. Rapid hemodynamic assessment. Identify the type of hemorrhage. Temporary hemostasis. Principles of rapid vascular refilling. Blood transfusion- online	3
13. Limb injuries - simulator - work on mannequins. Dislocations and sprains - identification. Signs of probability and certainty of fractures. Reasons for limb immobilization. Principles of limb immobilization. - Immobilization of the fracture of the forearm, arm, leg, thigh. - Immobilization of the sprain and dislocation of the ankle, elbow, knee. - Pelvic immobilization - pelvic belts - Boston / Geneva, vacuum stretcher Types of splints and their use - box splint, vacuum splint, traction splints, inflatable splints.	3
14. First aid in special situations - drowning, hanging, electrocution, hypothermia, hyperthermia, intoxications. Special techniques (gastric lavage, reheating) - simulator - work on mannequins. Application of teamwork at the scene of the accident - release	3
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7. Luciana Rotaru (sub redacția). Practica Mediciniei de Urgență. ISBN 978-606-11-4416-7. Editura Sitech. Craiova, 2015.	
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9. CORROBORATING THE DISCIPLINE CONTENT WITH THE EXPECTATIONS OF EPISTEMIC COMMUNITY REPRESENTATIVES, PROFESSIONAL ASSOCIATIONS AND EMPLOYEE REPRESENTATIVES RELATING TO THIS PROGRAM

<ul style="list-style-type: none"> ▪ The discipline of emergency medicine is a specialized discipline, mandatory for a student to become a practitioner with a correct vision on the situation of severity and the current and future risk of a patient in an emergency situation. ▪ The knowledge, practical skills and attitudes learned in this discipline offer students the opportunity to apply the knowledge, skills and abilities acquired during the years of study to customize clinical thinking, prioritize actions and algorithm management according to specific criteria for emergencies. ▪ It is expected that the practical skills, knowledge and abilities acquired in this discipline will determine an integrative vision of patient management at the hospital-prespital interface and at the border between specialties, defining a multidisciplinary and flexible interactive attitude, but at the same time algorithmic and coordinated. ▪ It is also expected that the program will serve as a career construction benchmark in the perspective of approaching the specialty of emergency medicine.
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10. METHODOLOGICAL LANDMARKS

Types of activity	Teaching / learning techniques, materials, resources: presentation, interactive course, group work, learning through problems / projects, audio-video recordings, etc. In case of special situations (alert states, emergency states, other types of situations that limit the physical presence of people) the activity can be carried out online using computer platforms
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	approved by the faculty / university. The online education process will be adapted accordingly to ensure the fulfillment of all the objectives set out in the subject sheet.
Course	The following combined methods are used: lecture, debate, problematization. For the online version: lecture, debate, problematization based on materials provided in advance.
Practical work	All practical work can be carried out both online and in the simulation center, depending on the special conditions imposed by the state of emergency / alert. The following combined methods are used: practical applications with role play, case study, simulations / case viewing, working in small groups on the mannequin, demonstrations of teamwork, integration in complex teams
Individual study	Before each course and each internship session

11. RECOVERY PROGRAM

	No. absences that can recover	Location of deployment	Period	In charge	Scheduling of topics
Absences recoveries	3	CPU Sp. Filantropia UPU - SMURD / online environment	The last week of the semester	The group assistant	According to the schedule Online / simulator, as appropriate Application / simulation based on the themes of the current month
Schedule consultations / Students' Scientific Program	2 hours / week	CPU Sp. Filantropia UPU - SMURD (SCJU Craiova) CPU Sp. Filantropia UPU - SMURD / online environment	Weekly	All teachers Dr Rotaru Luciana	The theme of the week Student Circle: SMURD Volunteer 2 times per semester application SMURD in the field,
Program for students poorly trained	2 hours / week	CPU Sp. Filantropia UPU - SMURD (SCJU Craiova)	Weekly	All teachers	According to the situation of each student The theme of the week

12. ASSESSMENT

Activity	Types of assesment	Method of evaluation	Percentage from final grade
Lecture	Formative evaluation through essays, projects and survey during the semester Summative during the exam	Grid type exam / grid system with the help of the computer platform in the online version.	50%
Practical work	Evaluare formativă prin lucrări de control tip grilă sau/și descriptive, proiecte, sondaj în timpul semestrului. Evaluare periodică în timpul semestrului, Sumativă în timpul examenului.	Formative evaluation through grid and / or descriptive control works, projects, survey during the semester. Periodic evaluation during the semester, Summative during the exam.	30%
Periodic assesment			20%
Assesment of individual activities			
Minimum performance standard			Minimum 50% for each component of the evaluation

13. GUIDANCE AND COUNSELLING PROGRAMS

Professional guidance and counselling programs (2 hours/monthly)

Scheduling the hours	Location	In charge
The last Friday of each month	Training center - UPU simulation - SMURD / online environment	Lecture holders

Endorsement date in the department: 30.09.2022

**Department Director,
Prof. Luminița CHIUȚU**

**Coordinator of study program,
Prof. Marius Eugen CIUREA**

**Discipline holder,
Asoc. Prof. Luciana Teodora ROTARU**