Sharda School of Allied Health Sciences

Program Curricula

Program Name:
Bachelor of Science (Emergency and Trauma Care Technology)

Program Code: SAH0132

Batch: 2025-29

Vision of the University

To serve the society by being a global University of higher learning in pursuit of academic excellence, innovation and nurturing entrepreneurship.

Mission of the University

1. Transformative educational experience
2. Enrichment by educational initiatives that encourage global outlook
3. Develop research, support disruptive innovations and accelerate entrepreneurship
4. Seeking beyond boundaries

Core Values

- Integrity
- Leadership
- Diversity
- Community

1.2 Vision and Mission of the School

Vision of the SSASH

To steer the School of Allied Health Sciences towards excellence in academics, innovation and entrepreneurship by constant endeavours.

Mission of the SSASH

1. To create the state-of-the-art facility for quality teaching learning, research & innovation
2. To incorporate the contemporary standards in teaching & learning
3. To inculcate in the students' values of integrity and compassion towards the care of patients and society.

Core Values

- Skilled professional
- Multidimensional
- Compassion
- Management

3 Program Educational Objectives (PEO)

PEO1-To create the group of professionals who can contribute to pre-hospital patient care and lead ambulance & other pre-hospital team.

PEO2: To create the special cadre of professionals who can be part of hospital-based emergency care and contribute to the code blue system effectively.

PEO3: To create the special cadre of professionals who can contribute to society and the healthcare system in terms of providing care and education in community healthcare centres.

PEO4: To create the special cadre of professionals who can be the teachers for emergency allied healthcare providers

1.3.2 Map PEOs with Mission Statements:

PEO Statements	School Mission 1	School Mission 2	School Mission 3
PEO1:	3	3	3
PEO2:	3	3	3
PEO3:	3	3	3
PEO4:	3	3	2

Enter correlation levels 1, 2, or 3 as defined below:

- Slight (Low)
- Moderate (Medium)
- Substantial (High)

1.3.3 Program Outcomes (PO's)

PO1: Professionals should be able to recognize the different types of health emergencies according to the clinical and injury presentations of an individual.

PO2: Should be able to provide competent Basic and advanced emergency care in hospital and pre- hospital care settings.

PO3: Should be able to train the public and community-based healthcare professionals in basic and advanced emergency care.

PO4: Should be able to design and conduct research projects in the field of emergency care.

1.3.4 Mapping of Program Outcome Vs Program Educational Objectives

	PEO1	PEO2	PEO3	PEO4
PO1	3	2	3	3
PO2	3	2	3	3
PO3	3	3	2	2
PO4	3	2	2	2

1. Slight (Low)
2. Moderate (Medium)
3. Substantial (High)

SHARDA UNIVERSITY
Beyond Boundaries

1st Semester

Sharda School of Allied Health Sciences
Bachelor of Science (Emergency and Trauma Care Technology)
Batch: 2025-29
TERM:1

Sr. No.	Subject Code	Subject	Teaching Load			Credit	Core/Elective/Pre Requisite/Co Requisite	Type of Course CC/AECC/SEC/DSE
			L	T	P			
Theory								
1	ARP101	Communicative English- 1	1	0	2	2	Minor	AEC
2	ETT1101	Overview of Human Anatomy, Physiology, Pharmacology, and MOI	2	2	0	4	Major	CC
3	ETT1102	Cardiovascular, Respiratory and Musculoskeletal Emergencies	2	1	0	3	Major	CC
4	ETT1103	Healthcare System in India, Basics of Research, and Burden of Diseases	2	1	0	3	Major	CC
Practical								
5	ETP1101	Anatomy, Physiology, Pathology and Pharmacology	0	0	2	1	Major	CC
6	ETP1102	Management of Cardio-Respiratory Disorders	0	0	4	2	Major	CC
7	ETP1103	History and Physical Examination	0	0	4	2	Major	CC
8	ETP1104	Musculoskeletal System Disorders (PCMSD)	0	0	4	2	Major	CC
9	ETP1105	Life Support Provider Training	0	0	2	1	Major	CC
Total Hours			7	4	18	20		

Schools: SSAHS		**Batch :** 2025-2029	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 1	
1	Course Code	ARP101	
2	Course Title	Communicative English-1	
3	Credit	2	
4	Contact Hours (L-T-P)	1-0-2	
5	Course Status	Compulsory	
6	Course Objective	To minimize the linguistic barriers that emerge in varied socio-linguistic environments through the use of English. Help students to understand different accents and standardise their existing English. Guide the students to hone the basic communication skills - listening, speaking, reading and writing while also uplifting their perception of themselves, giving them self-confidence and building positive attitude. To help the students to gain confidence in the use of the written and spoken English and sharpen their listening skills, since the medium of instruction during the course and the medium of documentation in emergency health care in India will be English	
7	Course Outcome	After completion of this course, students will be able to: **CO1:** Write grammatically correct sentences **CO2:** Acquire wider vocabulary and use strategies for error-free communication. **CO3:** demonstrate good speaking skills in academic and social contexts **CO4:** Brainstorm and document key critical thoughts that will help maximize their professional potential and availability of opportunities. **CO5:** Function and Communicate effectively in multi-disciplinary teams through team work and improve inter-personal relationships, conflict management and leadership quality	
	Course Description	The course is designed to equip students with varying levels of English language comprehension, to communicate and work with each other easily in varied workplace environments. The course begins with an in-depth understanding of grammar and sentence construction, leads up to easy comprehension of the written and spoken English language and its use, both in the healthcare and professional working environment.	
9	Outline Syllabus	Theory and Practical	
	Unit 1	**Sentence Structure**	**CO Mapping**
	Topic 1	Subject Verb Agreement	CO1

	Topic 2	Parts of speech	CO1
	Topic 3	Writing well-formed sentences	CO1
	Unit 2	**Vocabulary Building & Punctuation**	
	Topic 1	Homonyms/ homophones, Synonyms/ Antonyms	CO1, CO2
	Topic 2	Punctuation/ Spellings (Prefixes-suffixes / Unjumbled Words)	CO1, CO2
	Topic 3	Conjunctions/Compound Sentences	CO1, CO2
	Unit 3	Writing Skills	
	Topic 1	Picture Description – Student Group Activity	CO3
	Topic 2	Positive Thinking - Dead Poets Society-Full-length feature film Paragraph Writing inculcating the positive attitude of a learner through the movie | SWOT Analysis – Know yourself	CO3, CO2, CO3
	Topic 3	Story Completion Exercise –Building positive attitude - The Man from Earth (Watching a Full length Feature Film)	CO2, CO3
	Topic 4	Digital Literacy | Effective Use of Social Media	CO3
	Unit 4	Speaking Skill	
	Topic 1	Self-introduction/Greeting/Meeting people – Self branding	CO4
	Topic 2	Describing people and situations - To Sir With Love (Watching a Full length Feature Film)	CO4
	Topic 3	Dialogues/conversations (Situation based Role Plays)	CO4
	Unit 5	Professional Skills | Career Skills	
	Topic 1	Exploring Career Opportunities	CO4, CO5
	Topic 2	Brainstorming Techniques & Models	CO4, CO5
	Topic 3	Social and Cultural Etiquettes	CO4, CO5
	Topic 4	Internal Communication- Practicing handover and taking over	CO4, CO5
	Unit 6	Leadership and Management Skills	
	Topic 1	Managerial Skills	CO6
	Topic2	Entrepreneurial Skills	CO6
	Evaluations	*Class Assignments/Free Speech Exercises / JAM Group Presentations/Problem Solving Scenarios/GD/Simulations (60% CA and 40% ETE*	*N/A*
	Texts & References | Library Links	• Blum, M. Rosen. *How to Build Better Vocabulary*. London: Bloomsbury Publication • Comfort, Jeremy (et.al). *Speaking Effectively*. Cambridge University Press	

Mode of Examination	Theory			
Weightage Distribution	CA	MTE	ETE	
	60%	-	40%	
Text Book	Blum, M. Rosen. How to Build Better Vocabulary. London: Bloomsbury Publication			
Reference Book	• Comfort, Jeremy (et.al). Speaking Effectively. Cambridge University Press			

POs Cos	PO1	PO2	PO3	PO4
CO1	1	1	2	1
CO2	2	1	2	1
CO3	2	1	2	1
CO4	2	1	2	1
CO5	1	1	1	1
Avg. PO attained	1.60	1.00	1.80	1.00

School: SSAHS		Batch: 2025-29
Program		Bachelor of Science (Emergency and Trauma Care Technology)
Branch :		Semester: 1
1	Course Code	ETT1101
2	Course Title	Overview of Human Anatomy, Physiology, Pharmacology, and MOI
3	Credit	4
4	Contact Hours (L-T-P)	2-2-0
5	Course Status	Compulsory
6	Course Objectives	1- To develop a thorough knowledge of human anatomy and physiology, including the structure, organization, and relationships of the body's systems, organs, tissues, cells and locomotion. 2- To integrate anatomical and physiological concepts to comprehend how the body functions as a whole 3- To acquire a basic knowledge on how pathological changes in one system can affect others. 4- To acquire the basic knowledge of pharmacology along with drug administration for use in emergencies. 5- Tor provide through knowledge on injuries and their mechanisms
7	Course Outcome	At the end of the course, students will be able to: **CO1:** Define the anatomical structure of different body systems together with how these body systems work by themselves and with each other. **CO2:** Define the system / organ / body part and relate these to the anatomy and physiology of human body. **CO3:** Define the various types of pathological processes that can affect body systems and tissues, with the medical terminology. **CO4:** Define the pharmacological principles in treatment of diseases and injuries. **CO5:** Define the procedures for conduct of pharmacological interventions, such as for vascular access and medication administration. **CO6:** Understand how injuries impact & affect the human body and their consequences on other body parts
	Course Description	This comprehensive course is designed to provide students with a holistic understanding about the structure and physiology of human body and how pathological processes result in disease. This becomes the basis for the understanding of therapeutics in emergency care. This course also introduce the students with drugs, its routes and administrations. Also this course enable students to understand the types of injuries and their mechanisms.

9	Outline Syllabus	Theory	CO Mapping
	Unit 1A	Introduction to Anatomy and Physiology: Organ Systems. Planes for direction & movement. Types of cells and tissues and their functional characteristics, including the skin. Fluids in the body.	CO1
	Unit 1B	Musculoskeletal system structure, functions of different bones and joints, nutrition for bones and muscles and physiology of locomotion	CO2
	Unit 1C	Anatomy and Physiology of the Cardiovascular system, including the heart, blood vessels and their locations and the lymphatic system	CO2
	Unit 2A	Anatomy and Physiology of the Respiratory system. The physiology of ventilation, and the Roles of Oxygen and Carbon dioxide in the respiratory pathway	CO2
	Unit 2B	Anatomy and physiology of the Gastro intestinal system, including the oral structures, the digestive tract, liver, spleen and pancreas	CO2
	Unit 2C	Anatomy and Physiology of the Genito-urinary and Reproductive systems	CO2
	Unit 3A	Anatomy and Physiology of the Endocrine System	CO2
	Unit 3B	Anatomy and Physiology of the Neurological System, including the brain, spinal cord, peripheral and autonomic nervous	CO2
	Unit 3C	Anatomy and Physiology of the structures in the Head and Neck, including the sense organs	CO2
	Unit 4A	Pathophysiology of disease and injury, Medical terms and clinical manifestations	CO3
	Unit 4B	Signs and Symptoms in Disease and Consequences of disease	CO3
	Unit 4C	Exercises in disease pathology	CO3
	Unit 5A	Introduction to Pharmacokinetics and Pharmacodynamics, sources of drugs, drug approvals and drug nomenclature, classes of Drugs and Types, General properties of medication and drug storage	CO4
	Unit 5B	Medication administration and routes, vascular access and Medication administration: fluids and electrolytes, IV fluid composition	CO5
	Unit 5C	Injuries- Introduction Types of Injuries Mechanism of injuries- Motor vehicle crashes, Pedestrian injuries, skid and fall from height, stab wound, gunshot wound, injuries to skin	CO6

Mode of Examination	Theory			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	1- Elementary Pharmacology and Toxicology- RD Budhiraja 2- Anatomy, Physiology & Disease: Foundation for the Health Professions, by Deborah Roiger and Nia Bullock 3- Workbook for Anatomy, Physiology & Disease: Foundation for the Health Professions by Deborah Roiger and Nia Bullock			
Reference Book	1- Last's Anatomy: Regional and Applied. By Chummy and Sinnatamby 2- Ross and Wilson: Anatomy and Physiology in Health and Disease, 14th Edition 3- Gray's anatomy 4- Ganong's review of human physiology 5- Nancy Caroline's Emergency Care in the Streets- ninth edition 6- Emergency Care and Transportation of the Sick and Injured by American Academy of Orthopaedic Surgeons (AAOS)			

POs Cos	PO1	PO2	PO3	PO4
CO1	2	2	2	2
CO2	2	2	2	2
CO3	2	3	2	2
CO4	2	3	2	2
CO5	2	3	2	2
CO6	2	2	2	1
Avg. PO attained	2.00	2.50	2.00	1.83

School: SSAHS		Batch: 2025-29	
Program:		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 1	
1	Course Code	ETT1102	
2	Course Title	Cardiovascular, Respiratory and Musculoskeletal Emergencies	
3	Credit	3	
4	Contact Hours (L-T-P)	2-1-0	
5	Course Status	Compulsory	
6	Course Objective	1. To provide the student with a focused understanding of the cardiovascular, respiratory and musculoskeletal systems, their functioning and the diseases that can affect the systems. 2. To introduce the student to electrocardiograms and their interpretation 3. To enable students to identify common cardiovascular, respiratory, musculoskeletal system disorders, understand their pathophysiology and the basis for treatments. 4. To train the students in assessment of disorders, aetiology, clinical manifestation and treatment of these disorders and understand the usage of appropriate drugs.	
7	Course Outcome	At the end of the course, students will be able to: **CO1:** Relate anatomical structures in the cardiovascular system, their anatomy and functioning in health and disease. **CO2:** Relate anatomical structures in the respiratory system to their functions in health and disease. **CO3:** Read ECGs, identify abnormalities and suggest treatment approaches **CO4**: Define various diseases affecting the cardiovascular system, their assessment and treatment **CO5:** Describe the common emergency respiratory disorders and how to initiate treatment accordingly. **CO6:** Define the disorders affecting the musculoskeletal system, initial treatment of these and life and limb supporting first aid to injured patients in need **CO7:** Describe the use of pharmacological agents in the CVS, respiratory and musculoskeletal disorders.	
	Course Description	This course is designed to provide the student with an adequate understanding of the pathophysiology of diseases affecting the cardiovascular system, respiratory system and musculoskeletal systems, enable systematic evaluation of these patients, recognize emergency situations and provide initial care and stabilization, including the usage of pharmacological agents for these disorders.	
9	Outline Syllabus	Theory	CO Mapping

	Unit 1A	Heart, blood vessels, lymphatics, their distribution, relationships and their regulation, cardiac excitation, contraction and the role of the His Purkinje system	CO1
	Unit 1B	Blood pressure, heart rate, cardiac output and circulatory parameters, the electrocardiogram (ECG)	CO1
	Unit 1C	The Heart as a Pump and circulation of blood	CO1
	Unit 2A	Pleura, Lungs and Bronchial Tree and their surface markings and functions,	CO2
	Unit 2B	Blood Vessels of the Lung, their relationships and functions	CO2
	Unit 2C	Mechanism and Mechanics of Respiration, Gas Exchange and Oxygen transport, including methods of measurement and regulation of respiration	CO2
	Unit 3A	Mechanisms and Pathology of Ischaemic, Structural and other Heart Diseases	CO3
	Unit 3B	Symptoms and Signs of heart disease and their recognition	CO3,CO4
	Unit 3C	Principles and Practice of treatment of heart diseases	CO3,CO4
	Unit 4A	Mechanisms and Pathology of Respiratory diseases and infections	CO5
	Unit 4B	Symptoms and Signs of lung and their recognition	CO5
	Unit 4C	Principles and treatment of lung diseases	CO5
	Unit 5A	Upper and lower Limb Bones, spine, back and Muscles, Joints, Movements and functional activities and regulations and mechanisms and pathology of musculoskeletal diseases and injuries	CO6
	Unit 5B	Symptoms and Signs of Musculoskeletal illness and injury and their recognition, injury assessment and Principles and practice of treatment of musculoskeletal illnesses and injury assessment	CO6
	Unit 5C	Essential pharmacology for Cardiovascular, respiratory and musculoskeletal systems	CO7

Mode of Examination	Theory			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	1. Nancy Caroline's Emergency Care in the Streets- ninth edition 2. Emergency Care and Transportation of the Sick and Injured by American Academy of Orthopaedic Surgeons (AAOS) 3. Indian Guidelines on Basic Life Support. Garg R, Ahmed SM, Kapoor MC, Mishra BB, Rao SC, Kalandoor MV, Divatia JV, Singh B. Basic cardiopulmonary life support (BCLS) for cardiopulmonary resuscitation by trained paramedics and medics outside the hospital. Indian J			

	Anaesth. 2017 Nov;61(11):874-882. doi: 10.4103/ija.IJA_637_17. PMID: 29217852; PMCID: PMC5703000. 4. Garg R, Ahmed SM, Kapoor MC, Rao SC, Mishra BB, Kalandoor M V, Singh B, Divatia JV. Comprehensive cardiopulmonary life support (CCLS) for cardiopulmonary resuscitation by trained paramedics and medics inside the hospital. Indian J Anaesth 2017;61:883-94. 5. Kumar A, Aggarwal P. Basic life support. Natl Med J India 2023;36:29–35. DOI: 10.25259/NMJI_581_21 6. The ECG Made Easy by John Hampton, Joanna Hampton, David Adlam
Reference Book	1. Cardiovascular Emergencies, by Amal Mattu 2. Handbook of Pulmonary Emergencies by A. Medinger, S.V. Spagnolo

COs POs	PO1	PO2	PO3	PO4
CO1	3	2	2	2
CO2	3	2	2	2
CO3	3	3	2	2
CO4	3	3	2	2
CO5	3	3	2	2
CO6	3	3	2	2
CO7	2	3	2	2
Avg. PO attained	2.87	2.71	2.00	2.00

School: SSAHS		Batch: 2025-29	
Program:		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 1	
1	Course Code	ETT1103	
2	Course Title	Healthcare System in India, Basics of Research, and Burden of Diseases	
3	Credit	3	
4	Contact Hours (L-T-P)	2-1-0	
5	Course Status	Compulsory	
6	Course Objective	1. To introduce the students to the system of healthcare as it currently exists in India and to the burden of disease in the country. 2. To show some comparisons of other countries in the world, both in Asia and elsewhere. 3. The student will also need to achieve an understanding of healthcare financing, such as the various government programs and insurance systems. 4. To provide the basics of conduct of ethical research in the emergency environment.	
7	Course Outcome	After completion of course students will be able to: **CO1:** Describe the healthcare system in India, regulations, understanding of universal health and health insurance, and understand some of the critical statistics that relate to quality of care. **CO2:** Describe the ethical principles in the provision of healthcare and learn how to adhere to such principles **CO3:** Describe the good clinical practices and research process **CO4:** Understand the basic epidemiology of disease and mortality in India and be able to understand basic comparisons of the Indian healthcare system and that of other countries **CO5:** Describe the government programs for healthcare in India	
	Course Description	This course takes the student through the system of healthcare as it currently exists in India and explores issues such as financing of healthcare, why diseases and injuries occur and the ethical dilemmas that exist in the provision of healthcare and then discusses how the burden of healthcare may be decreased through multiple strategies. It also provides an adequate understanding of the burden of diseases and good ethical practices in research	
9	Outline Syllabus	Theory	CO Mapping
	Unit 1A	Organisation of Health services and healthcare delivery in India The National Healthcare Act and Role of Government in Healthcare	CO1

	Unit 1B	Universal Health Coverage and how it works Health Insurance- Public and private	CO1
	Unit 1C	Strategies to ensure Quality of Care	CO1
	Unit 2A	Healthcare Statistics and Facts	CO2
	Unit 2B	Usefulness of ethics and ethical standards in healthcare practice	CO2
	Unit 2C	Ethical Principles in Healthcare practice and Research Case studies to identify ethical challenges	CO2
	Unit 3A	Research as the basis for healthcare practice	CO3
	Unit 3B	Good Clinical Practice Guidelines Course	CO3
	Unit 3C	Basic Biostatistics	
	Unit 3D	The Research Process, Informed consent, and challenges in conducting research	CO3
	Unit 4A	Healthcare systems comparison with other countries	CO4
	Unit 4B	EMS comparison with other countries	CO4
	Unit 4C	Statistics comparison with other countries	CO4
	Unit 5A	Healthcare programs in India for public	CO5
	Unit 5B	Special healthcare program in India	CO5
	Unit 5C	Impact of healthcare programs in India	CO5

Mode of Examination	Theory			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	1- Health care system in India- Purohit, Brijesh C. 2- Nancy Caroline's Emergency Care in the Streets 3- Emergency Care and Transportation of the Sick and Injured by American Academy of Orthopaedic Surgeons (AAOS) 4- Garg R, Ahmed SM, Kapoor MC, Rao SC, Mishra BB, Kalandoor M V, Singh B, Divatia JV. Comprehensive cardiopulmonary life support (CCLS) for cardiopulmonary resuscitation by trained paramedics and medics inside the hospital. Indian J Anaesth 2017;61:883-94.			
Reference Book	1- https://apps.who.int/iris/rest/bitstreams/1415591/retrieve 2- https://www.india.gov.in/nhm-health-statistics-information-portal 3- India Health System Review by Sakthivel Selvaraj, Anup K Karan, Swati Srivastava, Nandita Bhan, 4- Indranil Mukhopadhyay. Health Systems in Transition Vol. 11 No. 1 2022			

	5- International Healthcare System Profiles – India. By Roosa Tikkanen, Robin Psborn, Elias Mossialos, Anan Djordjevic, George Wharton. 5 June 2020. Principles of Health Care Ethics. Ann Lloyd, Raanan Gillon Report No. 201: Emergency Medical Care to Victims of Accidents and During Emergency Medical Condition and Women under Labour. https://www.advocatekhoj.com/library/lawreports/emergencymedicalcare/index.php?

POs COs	PO1	PO2	PO3	PO4
CO1	2	2	2	2
CO2	2	2	2	2
CO3	2	2	2	2
CO4	2	1	1	2
CO5	2	1	1	2
Avg. PO attained	2.00	1.60	1.60	2.00

School: SSAHS		Batch: 2025-29	
Program:		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 1	
1	Course Code	ETP1101	
2	Course Title	Anatomy, Physiology, Pathology and Pharmacology	
3	Credit	1	
4	Contact Hours (L-T-P)	0-0-2	
5	Course Status	Compulsory	
6	Course Objective	1. To provide the student with demonstration of focused practical understanding of Human anatomy and physiology. 2. To apply knowledge of anatomy and physiology to clinical practice, including assessing patients, interpreting clinical data, and understanding the rationale behind clinical interventions 3. To acquire the basic knowledge of pharmacology along with drug administration in emergencies.	
7	Course Outcome	At the end of course students will be able to: **CO1:** Demonstrate labelling to identify the anatomical parts of cell, musculoskeletal, cardiovascular and respiratory system. **CO2:** Demonstrate labelling to identify the anatomical parts of genitourinary system, Nervous system, head and neck and endocrine system. **CO3:** Demonstrate identifying the pathology of Musculoskeletal, Cardiovascular, Respiratory system and GIT **CO4:** Demonstrate identifying the pathology of genitourinary system, Nervous system, head and neck and endocrine system **CO5:** Demonstrate the IV access, cannulation, external jugular vein cannulation, and intra-osseous infusion and drug administration.	
	Course Description	This comprehensive course is designed for students to apply the theoretical knowledge of anatomy and physiology to practical approach in the clinical practices, interpreting clinical data, rationale behind clinical interventions and the pharmacological interventions including IV, IO access to the drug administration.	
9	Outline Syllabus	**Practical**	CO Mapping
	Unit-1A	Practical demonstrations (labelling) in Anatomy and Physiology in Lab- Cell, Musculoskeletal	CO1
	Unit-1B	Practical demonstrations (labelling) in Anatomy and Physiology in Lab- Cardiovascular, Respiratory system and GIT	CO1
	Unit-1C	Practical demonstrations (labelling) in Anatomy and Physiology in Lab- Respiratory system and GIT	CO1
	Unit-2A	Practical demonstrations in Anatomy and Physiology in Lab- genitourinary system	CO2

	Unit-2B	Practical demonstrations in Anatomy and Physiology in Lab- Nervous system	CO2
	Unit-2C	Practical demonstrations in Anatomy and Physiology in Lab- Head and neck and endocrine system.	CO2
	Unit-3A	Posting in emergency department: Observing Pathology in the Emergency Department- Musculoskeletal,	CO3
	Unit-3B	Posting in emergency department: Observing Pathology in the Emergency Department- Cardiovascular	CO3
	Unit-3C	Posting in emergency department: Observing Pathology in the Emergency Department- Respiratory system and GIT	CO3
	Unit-4A	Posting in emergency department: Observing Pathology in the Emergency Department- genitourinary system, Nervous system, head and neck and endocrine system-1	CO4
	Unit-4B	Posting in emergency department: Observing Pathology in the Emergency Department- genitourinary system, Nervous system, head and neck and endocrine system-2	CO4
	Unit-4C	Posting in emergency department: Observing Pathology in the Emergency Department- genitourinary system, Nervous system, head and neck and endocrine system-3	CO4
	Unit-5A	Simulation lab and ED Posting: IV techniques and administration, External jugular vein cannulation, intra-osseous infusion-1	CO5
	Unit-5B	Simulation lab and ED Posting: IV techniques and administration, External jugular vein cannulation, intra-osseous infusion-2	CO5
	Unit-5C	Simulation lab and ED Posting: IV techniques and administration, External jugular vein cannulation, intra-osseous infusion-3	CO5

Mode of Examination	Practical			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	1. Nancy Caroline's Emergency Care in the Streets- ninth edition 2. Emergency Care and Transportation of the Sick and Injured by American Academy of Orthopedic Surgeons (AAOS) 3. Essential Procedures for Emergency, Urgent, and Primary Care Settings: A Clinical Companion. Theresa M. Campo, Keith A Lafferty, Jennifer L. Wilbeck, Jacob W. Ufberg			

Reference Book	1- Workbook for Anatomy, Physiology & Disease: Foundation for the Health Professions by Deborah Roiger and Nia Bullock 2- Last's Anatomy: Regional and Applied. By Chummy and Sinnatamby 3- Ross and Wilson: Anatomy and Physiology in Health and Disease, 14th Edition 4- Gray's anatomy: The Anatomical Basis of Clinical Practice 5- Ruth Hull. Anatomy, Physiology, and Pathology, Third Edition

POs COs	PO1	PO2	PO3	PO4
CO1	2	1	2	1
CO2	2	1	2	1
CO3	2	2	2	1
CO4	2	2	2	1
CO5	2	3	2	1
Avg. PO attained	2.00	1.80	2.00	1.00

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch : BEPC		Semester: 1	
1	Course Code	ETP1102	
2	Course Title	Management of Cardio-Respiratory Disorders	
3	Credit	2	
4	Contact Hours (L-T-P)	0-0-4	
5	Course Status	Compulsory	
6	Course Objective	1- To provide students a skill based focused understanding of the cardiovascular system and respiratory system and its functioning. 2- To provide students a practical understanding on the respiratory and cardiovascular diseases assessment and treatment that affect the systems. 3- To enable students to be familiar with taking and identifying abnormalities in ECG 4- To enable students to identify common cardiovascular and respiratory disorders and develop the skills of identifying and managing the initial deteriorating condition of patient	
7	Course Outcome	After completion of course students will be able to: **CO1:** Demonstrate the identification of parts of respiratory and cardiovascular system. **CO2:** Demonstrate the taking vital signs **CO3**: Demonstrate the ECG taking with the appropriate techniques and monitoring it. **CO4:** Demonstrate the assessment of respiratory and cardiovascular system and practical procedures **CO5:** Demonstrate the physiological parameters of respiratory and cardiovascular system.	
	Course Description	This course enables the student to understand the respiratory and cardiovascular system, measure vital signs, perform an ECG, and assess and perform procedures related to the respiratory and cardiovascular system.	
9	Outline Syllabus	Practical	CO Mapping
	Unit-1A	Laboratory: Practical training in anatomy and physiology of Cardiovascular and Respiratory system-1	CO1
	Unit-1B	Laboratory: Practical training in anatomy and physiology of Cardiovascular and Respiratory system-2	CO1
	Unit-C	Laboratory: Practical training in anatomy and physiology of Cardiovascular and Respiratory system-3	CO1
	Unit-2A	Simulation Lab: Measurement of Vital Signs-1	CO2

	Unit-2B	Simulation Lab: Measurement of Vital Signs-2	CO2
	Unit-2C	Simulation Lab: Measurement of Vital Signs-3	CO2
	Unit-3A	ECG Laboratory – Performing and Reading ECGs and ECG monitoring-1	CO3
	Unit-3B	ECG Laboratory – Performing and Reading ECGs and ECG monitoring-2	CO3
	Unit-3C	ECG Laboratory – Performing and Reading ECGs and ECG monitoring-3	CO3
	Unit-4A	Simulation Laboratory- Cardio-Respiratory Physical Examination-1	CO4
	Unit-4B	Simulation Laboratory- Cardio-Respiratory Physical Examination-2	CO4
	Unit-4C	Simulation Laboratory- Cardio-Respiratory Physical Examination-3	CO4
	Unit-5A	ED Posting- Respiratory and cardiovascular Practical Procedures (measuring physiological parameters)-1	CO5
	Unit-5B	ED Posting- Respiratory and cardiovascular Practical Procedures (measuring physiological parameters)-2	CO5
	Unit-5C	ED Posting- Respiratory and cardiovascular Practical Procedures (measuring physiological parameters)-3	CO5

Mode of Examination	Theory			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	1- Nancy Caroline's Emergency Care in the Streets- ninth edition 2- Emergency Care and Transportation of the Sick and Injured by American Academy of orthopedic Surgeons (AAOS) 3- Clinical Methods: The History, Physical, and Laboratory Examinations. 3rd edition. Walker HK, Hall WD, Hurst JW, editors. Boston: Butterworths; 1990.			
Reference Book	1. Cardiovascular Emergencies, by Amal Mattu 2. Handbook of Pulmonary Emergencies by A. Medinger, S.V. Spagnolo\ 3. Patient Assessment Practice Scenarios by Les Hawthorne			

POs COs	PO1	PO2	PO3	PO4
CO1	2	2	2	1
CO2	3	2	2	1
CO3	3	3	2	1
CO4	3	3	2	1
CO5	3	2	2	1
Avg. PO attained	2.80	2.20	2.00	1.00

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch : BEPC		Semester: 1	
1	Course Code	ETP1103	
2	Course Title	History and Physical Examination	
3	Credit	2	
4	Contact Hours (L-T-P)	0-0-4	
5	Course Status	Compulsory	
6	Course Objective	To guide the student in the conducting of methodical patient assessment 1. To guide the students in history taking. 2. To guide the students in physical examination	
7	Course Outcome	On completion of course students will be able to: **CO1:** Demonstrate the process of history taking from the patient, bystander, and relatives. **CO2**: Demonstrate physical examination techniques like inspection, palpation, percussion and auscultation in the normal subject. **CO3:** Demonstrate the systemic and system specific physical examination of the normal subject. **CO4:** Correlate history taking and physical examination findings. **CO5:** Demonstrate the step-by-step physical examination of patients with various presentations in case scenarios.	
	Course Description	This course is designed for students to practice history taking and physical examination of patients with a variety of disorders / injuries in the skills lab and in the Emergency Department.	
9	Outline Syllabus	Practical	CO Mapping
	Unit-1A	Demonstration and Practice- The Principles and Art of History taking in clinical care-1	CO1
	Unit-1B	Demonstration and Practice- The Principles and Art of History taking in clinical care-2	CO1
	Unit-1C	Demonstration and Practice- The Principles and Art of History taking in clinical care-3	CO1
	Unit-2A	Demonstration and Practice- Inspection, palpation, percussion and auscultation-1	CO2
	Unit-2B	Demonstration and Practice- Inspection, palpation, percussion and auscultation-2	CO2
	Unit-2C	Demonstration and Practice- Inspection, palpation, percussion and auscultation-3	CO2
	Unit-3A	Demonstration and simulation- Systematic and system-specific Physical Examination-1	CO3

	Unit-3B	Demonstration and simulation- Systematic and system-specific Physical Examination-2	CO3
	Unit-3C	Demonstration and simulation- Systematic and system-specific Physical Examination-3	CO3
	Unit-4A	Simulated Case Scenario- Combining History and Physical Examination-1	CO4
	Unit-4B	Simulated Case Scenario- Combining History and Physical Examination-2	CO4
	Unit-4C	Simulated Case Scenario- Combining History and Physical Examination-3	CO4
	Unit-5A	Practical: Assessments (Short and Long Cases)-1	CO5
	Unit-5B	Practical: Assessments (Short and Long Cases)-2	CO5
	Unit-5C	Practical: Assessments (Short and Long Cases)-3	CO5

Mode of Examination	Practical			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	1- History and Physical Examination, by Paul Chan and Peter Winkle			
Reference Book	1- Nancy Caroline's Emergency Care in the Streets- ninth edition 2- Emergency Care and Transportation of the Sick and Injured by American Academy of Orthopaedic Surgeons (AAOS) 3- Patient Assessment Practice Scenarios by Les Hawthorne 4- Clinical Methods: The History, Physical, and Laboratory Examinations. 3rd edition. Walker HK, Hall WD, Hurst JW, editors. Boston: Butterworths; 1990.			

POs COs	PO1	PO2	PO3	PO4
CO1	3	2	2	1
CO2	3	2	2	1
CO3	3	2	2	1
CO4	3	2	2	1
CO5	3	2	2	1
Avg. PO attained	3.00	2.00	2.00	1.00

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 1	
1	Course Code	ETP1104	
2	Course Title	Musculoskeletal System Disorders (PCMSD)	
3	Credit	2	
4	Contact Hours (L-T-P)	0-0-4	
5	Course Status	Compulsory	
6	Course Objective	1. To enable students to be familiar with the musculoskeletal system including its functions and movements. 2. To provide practical knowledge and skills to the students about the disorders, injuries including the assessment. 3. To provide practical knowledge and skills to the student about the treatment of the musculoskeletal injuries and its disorders.	
7	Course Outcome	After completion of course students will be able to: **CO1:** Demonstrate the movements and functional activities for regulation of Bones, Muscles, and Joints in the upper and lower extremities **CO2:** Demonstrate the examination of spinal column. **CO3:** Demonstrate coordinated examination of the upper limb, lower limb and back **CO4:** Demonstrate ability to identifying the signs and symptoms of musculoskeletal injuries and treatment. **CO5:** Demonstrate treatment procedures for musculoskeletal injuries.	
	Course Description	This course is designed to provide the student with an adequate understanding of the musculo-skeletal system, its functions, movement regulation and assessment and treatment of the illness/disorders related with system and maneuvers and procedures used for musculoskeletal system management.	
9	Outline Syllabus	Practical	CO Mapping
	Unit-1A	ED Attachment- Examining and Testing Upper Limb Bones, Muscles, Joints, Movements and functional activities-1	CO1,CO2
	Unit-1B	ED Attachment - Examining and Testing Lower Limb Bones, Muscles, Joints, Movements and functional activities-2	CO1,CO2
	Unit-1C	ED Attachment - Examining and Testing Lower Limb Bones, Muscles, Joints, Movements and functional activities-3	CO1,CO2

	Unit-2A	ED Attachment - Examining the Spinal Column, Back, Movements and functional activities-1	CO2
	Unit-2B	ED Attachment - Examining the Spinal Column, Back, Movements and functional activities-2	CO2
	Unit-2C	ED Attachment - Examining the Spinal Column, Back, Movements and functional activities-3	CO2
	Unit-3A	Simulation Lab- Examining Coordination and Regulation of Upper Limb, Lower Limb and Back Movements-1	CO1,CO3
	Unit-3B	Simulation Lab- Examining Coordination and Regulation of Upper Limb, Lower Limb and Back Movements-2	CO1,CO3
	Unit-3C	Simulation Lab- Examining Coordination and Regulation of Upper Limb, Lower Limb and Back Movements-3	CO1,CO3
	Unit-4 A	ED Attachment - Looking for Symptoms and Signs of Musculo-skeletal illness and injury and their recognition	CO4
	Unit-4B	ED/Ortho ward Attachment- Principles and Practice of treatment of Musculo-skeletal illnesses and injuries-1	CO4
	Unit-4C	ED/Ortho ward Attachment- Principles and Practice of treatment of Musculo-skeletal illnesses and injuries-2	CO4
	Unit-5A	Simulation Lab and ED Attachment- Practical Musculoskeletal Procedures (Splinting of limbs and joints, Plaster Cast application and removal, RICE Treatment)-1	CO4,CO5
	Unit-5B	Simulation Lab and ED Attachment- Practical Musculoskeletal Procedures (Splinting of limbs and joints, Plaster Cast application and removal, RICE Treatment)-2	CO4,CO5
	Unit-5C	Simulation Lab and ED Attachment- Practical Musculoskeletal Procedures (Splinting of limbs and joints, Plaster Cast application and removal, RICE Treatment)-3	CO4,CO5

Mode of Examination	Practical

Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	1- Nancy Caroline's Emergency Care in the Streets- ninth edition			
Reference Book	1- Emergency Care and Transportation of the Sick and Injured by American Academy of Orthopaedic Surgeons (AAOS) 2- Clinical Methods: The History, Physical, and Laboratory Examinations. 3rd edition. Walker HK, Hall WD, Hurst JW, editors. Boston: Butterworths; 1990.			

POs Cos	PO1	PO2	PO3	PO4
CO1	3	2	2	1
CO2	3	2	2	1
CO3	3	2	2	1
CO4	3	3	2	1
CO5	2	3	2	1
Avg. PO attained	2.80	2.40	2.00	1.00

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 1	
1	Course Code	ETP1105	
2	Course Title	Life Support Provider Training	
3	Credit	1	
4	Contact Hours (L-T-P)	0-0-2	
5	Course Status	Compulsory	
6	Course Objective	1. To provide skills in assessment of patients with life threatening conditions 2. To teach immediate interventional skills for life threatening conditions 3. To Teach monitoring skills for patients recovering from life threatening conditions. 4. To provide skills in provision of first aid	
7	Course Outcome	On completion of course students will be able to: **CO1-** Demonstrate the recognise a patient with life threatening conditions and activation of emergency care systems **CO2-** Demonstrate the skills of cardiopulmonary resuscitation (CPR). **CO3:** Demonstrate the indications and use of an AED device **CO4-** Demonstrate assessment and immediate management of patients with medical life threatening conditions in a simulated environment. **CO5-** Demonstrate the provision of first aid in variety of simulated conditions including medical, trauma and environmental	
	Course Description	This course is designed to equip students with lifesaving skills for cardiac arrest and other life threatening conditions including medical, trauma and environmental	
9	Outline Syllabus	Practical	CO Mapping
		Practical Training: Basic Cardiac Life Support Provider with AED use	CO1,CO2, CO2
	Unit-1A	Assessment of patient and activation of EMS and Chain of survival-1	CO1
	Unit-1B	Assessment of patient and activation of EMS and Chain of survival-2	CO1
	Unit-1C	Assessment of patient and activation of EMS and Chain of survival-3	CO1
	Unit-2A	Demonstration of cardiopulmonary resuscitation-1	CO2
	Unit-2B	Demonstration of cardiopulmonary resuscitation-2	CO2
	Unit-2C	Demonstration of cardiopulmonary resuscitation-3	CO2
	Unit-3A	Use of AED-1	CO3

	Unit-3B	Use of AED-2	CO3
	Unit-3C	Use of AED-3	CO3
		Practical Training: Life Supporting First Aid	
	Unit-4A	Medical emergencies-1	CO4
	Unit-4B	Medical emergencies-2	CO4
	Unit-4C	Medical emergencies-3	CO4
	Unit-5A	Trauma and environmental emergencies-1	CO5
	Unit-5B	Trauma and environmental emergencies-2	CO5
	Unit-5C	Trauma and environmental emergencies-3	CO5

Mode of Examination	Practical			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	1- Mosby's Paramedic Textbook 2- First Aid and Emergency Care- N Harris 3- Emergency Responder: Advanced First Aid for Non-EMS Personnel (EMR)-Chris Le Baudour			
Reference Book	1. Indian Guidelines on Basic Life Support. Garg R, Ahmed SM, Kapoor MC, Mishra BB, Rao SC, Kalandoor MV, Divatia JV, Singh B. Basic cardiopulmonary life support (BCLS) for cardiopulmonary resuscitation by trained paramedics and medics outside the hospital. Indian J Anaesth. 2017 Nov;61(11):874-882. Doi: 10.4103/ija.IJA_637_17. PMID: 29217852; PMCID: PMC5703000. 2. Garg R, Ahmed SM, Kapoor MC, Rao SC, Mishra BB, Kalandoor M V, Singh B, Divatia JV. Comprehensive cardiopulmonary life support (CCLS) for cardiopulmonary resuscitation by trained paramedics and medics inside the hospital. Indian J Anaesth 2017;61:883-94. 3. Kumar A, Aggarwal P. Basic life support. Natl Med J India 2023;36:29–35. DOI: 10.25259/NMJI_581_21 4. Nancy Caroline's Emergency Care in the Streets- ninth edition 5. First Aid Manual 11th Edition. Written for St John Ambulance, St Andrew's Ambulance Association, and British Red Cross			

Pos Cos	PO1	PO2	PO3	PO4
CO1	3	2	2	1
CO2	2	3	2	1
CO3	3	2	2	1
CO4	3	3	2	1
CO5	3	3	2	1
Avg. PO attained	2.80	2.60	2.00	1.00

2nd Semester

Program Structure Template
School of Allied Health Sciences
Bachelor of Science (Emergency and Trauma Care Technology)
Batch: 2025-29
TERM:2

Sr. No.	Subject Code	Subject	Teaching Load			Credit	Core/Elective/Pre Requisite/Co Requisite	Type of Course CC/AEC C/SEC/DSE
			L	T	P			
Theory								
1		Communicative English- 2	1	0	2	2	Minor	AEC
2	ETT1121	Gastrointestinal, Haematological, Renal and Urological Emergencies	2	1	0	3	Major	CC
3	ETT1122	Basic, Advanced Airway management, and Trauma Care Management	1	2	0	3	Major	CC
4	ETT1123	Ethics in Research, Topic selection, and literature review	2	0	0	2	Major	CC
5	ETT1124	Introduction to Community, Pre-Hospital, Emergency Department Based care	2	0	0	2	Major	CC
6	ETT1125	Basic Principles of Management	1	1	0	2	Major	CC
Practical Courses								
7	ETP1121	Gastrointestinal, Haematological, Renal and Urological Emergencies	0	0	4	2	Major	CC
8	ETP1122	Basic and Advanced Airway management, Emergency Trauma Care Management	0	0	6	3	Major	CC
9	ETP1123	Community, Pre- Hospital, Emergency Department Based care	0	0	2	1	Major	CC
Total Hours			9	4	14	20		

Schools: SSAHS		**Batch :** 2025-2029	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 2	
1	Course Code		
2	Course Title	Communicative English-2	
3	Credit	2	
4	Contact Hours (L-T-P)	1-0-2	
5	Course Status	Compulsory	
6	Course Objective	To Develop LSRW skills through audio-visual language acquirement, creative writing, advanced speech et al and MTI Reduction with the aid of certain tools like texts, movies, long and short essays.	
7	Course Outcome	After completion of this course, students will be able to: **CO1:** Synthesize complex concepts and present them in creative writing **CO2** Develop MTI Reduction/Neutral Accent through Classroom Sessions & Practice **CO3:**Determine their role in achieving team success through defining strategies for effective communication with different people **CO4:** Acquire satisfactory competency in use of Quantitative aptitude and Logical Reasoning **CO5:** Realize their potentials as human beings and conduct themselves properly in the ways of world.	
8	Course Description	The course takes the learnings from the previous semester to an advanced level of language learning and self-comprehension through the introduction of audio-visual aids as language enablers. It also leads learners to an advanced level of writing, reading, listening and speaking abilities, while also reducing the usage of L1 to minimal in order to increase the employability chances.	
9	Outline Syllabus	Theory	
	Unit 1	Acquiring Vision, Goals and Strategies through Audio-visual Language Texts	**CO Mapping**
	Topic 1	Pursuit of Happiness / Goal Setting & Value Proposition in life	CO1
	Topic 2	12 Angry Men / Ethics & Principles	CO1
	Topic 3	The King's Speech / Mission statement in life | strategies & Action Plans in Life	CO1
	Unit 2	Creative Writing	
	Topic 1	Story Reconstruction - Positive Thinking	CO2
	Topic 2	Theme based Story Writing - Positive attitude	CO2

	Topic 3	Learning Diary Learning Log – Self-introspection	CO2
	Unit 3	Writing Skills 1	
	Topic 1	Précis	CO2
	Topic 2	Paraphrasing	CO2
	Topic 3	Essays (Simple essays)	CO2
	Unit 4	MTI Reduction/Neutral Accent through Classroom Sessions & Practice	
	Topic 1	Vowel, Consonant, sound correction, speech sounds, Monotones, Diphthongs and Tripthongs	CO3
	Topic 2	Vowel Sound drills , Consonant Sound drills, Affricates and Fricative Sounds	CO3
	Topic 3	Speech Sounds | Speech Music| Tone | Volume| Diction |Syntax |Intonation | Syllable Stress |	CO3
	Unit 5	Gauging MTI Reduction Effectiveness through Free Speech	
	Topic 1	Jam sessions	CO3
	Topic 2	Extempore	CO3
	Topic 3	Situation-based Role Play	CO3
	Unit 6	Leadership and Management Skills	CO4
	Topic 1	Innovative Leadership and Design Thinking	CO4
	Topic 2	Ethics and Integrity	CO4
	Unit 7	Universal Human Values	
	Topic 1	Love & Compassion, Non-Violence & Truth	CO5
	Topic 2	Righteousness, Peace	CO5
	Topic 3	Service, Renunciation (Sacrifice)	CO5
	Unit 8	Introduction to Quantitative aptitude & Logical Reasoning	
	Topic 1	Analytical Reasoning & Puzzle Solving	CO6
	Topic 2	Number Systems and its Application in Solving Problems	CO6
	Evaluations	Class Assignments/Free Speech Exercises / JAM Group Presentations/Problem Solving Scenarios/GD/Simulations (60% CA and 40% ETE	N/A
	Texts book	1. Wren, P.C. & Martin H. High English Grammar and Composition, S. Chand & Company Ltd, New Delhi. 2. Blum, M. Rosen. How to Build Better Vocabulary. London: Bloomsbury Publication 3. Comfort, Jeremy, et al. Speaking Effectively. Cambridge University Press.	
	Reference Book	○ The Luncheon by W. Somerset Maugham - **http://mistera.co.nf/files/sm_luncheon.pdf**	

PSOs Cos	P1	PO2	PO3	PO4
CO1	2	1	2	1
CO2	2	1	2	1
CO3	2	1	2	1
CO4	2	1	2	1
CO5	2	1	2	1
Avg. PO attained	2.00	1.00	2.00	1.00

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 2	
1	Course Code	ETT1121	
2	Course Title	Gastrointestinal, Haematological, Renal and Urological Emergencies	
3	Credit	3	
4	Contact Hours (L-T-P)	2-1-0	
5	Course Status	Compulsory	
6	Course Objective	1- To provide knowledge on the anatomy, physiology of the gastrointestinal, hepatological, haematological, renal and urological system 2- To provide knowledge on the aetiology, physiology, clinical manifestation and treatment of the disorders related to the gastrointestinal, hepatological, haematological, renal and urological system 3- To provide knowledge about blood gases and the acid based disorders in the human body	
7	Course Outcome	At the end of course students will be able to: **CO1:** Relate the anatomy and physiology of the gastrointestinal and hepatological systems to disorders of these systems and to their assessment and management. **CO2:** Relate the anatomy and physiology of the haematological system to its disorders, their assessment and management. **CO3:** Relate the anatomy and physiology of the renal systems to the disorders of these systems and to their assessment and management **CO4:** Relate the anatomy and physiology of the urological systems to the disorders of these systems and to their assessment and management **CO5**: Describe the use of blood gases in the recognition and management of acid base disorders	
	Course Description	This course the principles of the management of gastrointestinal, hepatological, haematological, renal and urological system disorders, including acid base disorders in the human body	
9	Outline Syllabus	**Theory**	
	Unit 1A	Introduction, anatomy and physiology of gastrointestinal hepatological and haematological system	CO1, CO2
	Unit 1B	Aetiology, pathology, clinical manifestations, and principles of management of gastrointestinal hepatological and haematological disorders	CO1,CO2

	Unit 1C	Clinical aspects, including management of Gastro-Intestinal bleed, oesophageal varices, Mallory Weiss syndrome, haemorrhoids, Peptic Ulcer Diseases, cholecystitis	CO2
	Unit 2A	Clinical aspects, including management of Appendicitis, Diverticulitis, pancreatitis, ulcerative colitis, Chron's disease	CO2
	Unit 2B	Clinical aspects, including management of Gastroenteritis, hepatitis and bowel obstructions, Neonatal jaundice, biliary atresia, ingestion of foreign bodies, Meckel diverticulum	CO2
	Unit 2C	Blood, its components, disorders and management, such as Anaemia, Leukemia, Lymphoma, Polycythemias, Hemophilia, Sickle cell disease, myeloma	CO2
	Unit 3A	Anatomy and physiology of the renal and urological systems	CO3
	Unit 3B	Disorders of the renal and urological system and their Pathophysiology	CO3
	Unit 3C	Clinical aspects of Acute renal failure, chronic renal failure, stones and urinary tract infections and their management	CO4
	Unit 4A	Clinical aspects of Glomerulonephritis, Polycystic kidney disease, urinary incontinence and their management	CO4
	Unit 4B	Blood gases- an Introduction	CO5
	Unit 4C	Normal blood gas values and its regulation in the human body	CO5
	Unit 5A	An introduction n to Acid base disorders and blood gas analyses	CO5
	Unit 5B	Normal blood gas values and their regulations in human body	CO5
	Unit 5C	Acid base disorders and their treatment	CO5

Mode of Examination	Theory			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	Nancy Caroline's Emergency Care in the Streets			
Reference Book	1. Emergency Care and Transportation of the Sick and Injured by American Academy of Orthopaedic Surgeons (AAOS) 2. Workbook for Anatomy, Physiology & Disease: Foundation for the Health Professions by Deborah Roiger and Nia Bullock 3. Patient Assessment Practice Scenarios by Les Hawthorne			

	4. MSD Manual: Metabolic and Endocrine Disorders. Professional version.

POs Cos	PO1	PO2	PO3	PO4
CO1	3	3	2	1
CO2	3	3	2	1
CO3	3	3	2	1
CO4	3	3	2	1
CO5	3	3	2	1
Avg. PO attained	3.00	3.00	2.00	1.00

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 2	
1	Course Code	ETT1122	
2	Course Title	Basic, Advanced Airway management, and Trauma Care Management	
3	Credit	03	
4	Contact Hours (L-T-P)	1-2-0	
5	Course Status	Compulsory	
6	Course Objective	1- To provide knowledge on patient's airway and its maintenance with adjuncts. 3. To explain the mechanisms of oxygen delivery devices and ventilation techniques. 4. To provide knowledge on basic and advanced airway management techniques. 5. To provide knowledge on skills to be used by community first responders and provision of basic trauma care to the patients.	
7	Course Outcome	At the end of course students will be able to: **CO1:** Describe the upper and lower airway, opening, clearing and maintenance of the airway by using basic techniques and airway adjuncts. **CO2:** Describe advanced airway management techniques, including intubation and extubation techniques and procedures. **CO3**: Describe the skills used by community first responders and care that can be given in medical, trauma and environmental emergencies in the community **CO4:** Describe the characteristics of the trauma scene, types and mechanisms of emergencies, and step-by-step trauma patient assessment **CO5:** Describe the care that needs to be rendered to the trauma patient in different types of injuries.	
	Course Description	This course is designed to make the students familiar with assessment of the airway and the use of basic and advanced airway techniques, community first responder first aid and the assessment and initial management of trauma casualties	
9	Outline Syllabus	**Theory**	
	Unit 1A	Anatomy of airway, ventilation and respiration Airway evaluation and airway management Airway obstruction, suctioning.	CO1
	Unit 1B	Airway adjuncts, maneuvers, supplemental oxygen Oxygen delivery devices. Assisted and artificial ventilation, gastric distention	CO1
	Unit 1C	Endotracheal Intubation	CO2

		Oro-tracheal intubation, Naso-tracheal intubation Trans-illumination technique of intubation, video laryngoscopy and extubation	
	Unit 2A	Pediatric intubation Supraglotic and Multi-lumen airways	CO2
	Unit 2B	Pharmacological adjuncts for airway management Surgical airway management techniques	CO2
	Unit 2C	Special considerations in patients with difficult airways	CO1,CO2
	Unit 3A	Community first Responder skills and knowledge- Scene survey in the event of injuries Life threatening condition and interventions	CO3
	Unit 3B	Community first Responders- Medical Emergencies and first aid	CO3
	Unit 3C	First aid principles in trauma and non-trauma emergencies First-aid for Environmental Emergencies	CO3
	Unit 4	Basic Trauma Life Support Provider	CO4
	Unit 4A	Primary survey and secondary survey Critical interventions in trauma Head and face injuries Assessment and management of injuries to Skull and facial bones, eyes, ears teeth, mouth, anterior part of neck, brain, face	CO4
	Unit 4B	Spine Injuries: Anatomy, Pathophysiology, patient assessment, management, treatment, pharmacotherapy of spinal cord injury, complications of spinal cord injuries.	CO4
	Unit 4C	Thoracic Injuries: Anatomy, Physiology and Pathophysiology of thoracic injuries, General assessment and management and treatment of Specific injuries	CO4
	Unit 5A	Abdominal Injuries: mechanism of abdominal injuries, Pathophysiology, assessment, management of abdominal injuries Pelvic injuries	CO5
	Unit 5B	Musculoskeletal Injuries: Patterns and mechanism of musculoskeletal injuries • Fractures • Ligament injury and dislocation • Muscle and tendon injuries • Arthritis • Amputations	CO5

		• Laceration • Vascular injuries	
	Unit 5C	Burns and scalds: mechanisms of injury, effects, assessment and initial management. • Thermal burns • Chemical burns • Electrical burns • Radiation burns	CO5
	Unit 5D	Principles of lifting and moving General interventions and Complications Usage of equipment for immobilization and transportation of victim. Management of pregnant and paediatric patients with trauma Special trauma situation such as thermal injuries, electrocution and lightning injuries	CO5

Mode of Examination	Theory			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	1. First Responder Care Essentials by Richard Pilbery, Kris Lethbridge 2. First Responders Handbook. An Introduction, Second Edition. By Michael L. Madigan 3. Nancy Caroline's Emergency Care in the Streets- ninth edition 4. International Trauma Life Support for Emergency Care Providers. Roy Alson, John Campbell. 9th Edition. 5. Emergency Care and Transportation of the Sick and Injured by American Academy of Orthopaedic Surgeons (AAOS)			
Reference Book	• 1. Handbook of Pulmonary Emergencies by A. Medinger, S.V. Spagnolo • 2. Basic airway management in adults. Kathleen A Wittels, Ron M Walls, Jonathan Grayzel. UpToDate			

POs Cos	PO1	PO2	PO3	PO4
CO1	3	3	2	1
CO2	3	3	2	1
CO3	3	3	2	1
CO4	3	3	2	1
CO5	3	3	2	1
Avg. PO attained	3.00	3.00	2.00	1.00

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 2	
1	Course Code	ETT1123	
2	Course Title	Ethics in Research, Topic selection, and literature review	
3	Credit	2	
4	Contact Hours (L-T-P)	2-0-0	
5	Course Status	Compulsory	
6	Course Objective	1- To provide knowledge on the ethics in emergency care and practice 2- Top provide understanding on selection of research topics and conduct of literature search	
7	Course Outcome	At the end of the course, students will be able to: **CO1:** Describe the principles of emergency care research **CO2:** Describe the process of searching and selecting research topic. **CO3:** Describe the process of literature search in emergency care research **CO4**: Describe the ethical and legal issues in emergency care research **CO5:** Conduct review of published research	
	Course Description	This course is designed to teach the ethical and legal aspects of practices in emergency care setting, introduce the students to emergency care research and teach them to conduct literature search critically appraise published research papers	
9	Outline Syllabus	**Theory**	
	Unit 1A	Introduction to emergency care research	CO1
	Unit 1B	Principles of quantitative research	CO1
	Unit 1C	Principles of qualitative research	CO1
	Unit 2A	Choosing the research topic	CO2
	Unit 2B	Selection of Emergency Care Research topic	CO2
	Unit 2C	Exercises in research topic selection	CO2
	Unit 3A	Introduction to literature search	CO3
	Unit 3B	Introduction to the Cochrane Collaboration	CO3
	Unit 3C	Exercises in conduct of literature search	CO3
	Unit 4A	Introduction to ethics in healthcare	CO4
	Unit 4B	Ethics and legal challenges in emergency care	CO4
	Unit 4C	Review of ethical and legal issues in emergency care	CO4
	Unit 5A	Reviewing a research paper-1	CO5
	Unit 5B	Reviewing a research paper-2	CO5

	Unit 5C	Reviewing a research paper-3	CO5

Mode of Examination	Theory			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	1. The ethical considerations for emergency care research in low- and middle-income countries: A scoping review of the published literature. Sarah Hirner, Colleen Saunders, Willem Stassen. African Journal of Emergency Medicine. Volume 12, Issue 1, March 2022, Pages 71-76 2. Millum J, Beecroft B, Hardcastle TC, Hirshon JM, Hyder AA, Newberry JA, Saenz C. Emergency care research ethics in low-income and middle-income countries. BMJ Glob Health. 2019 Jul 29;4(Suppl 6):e001260. doi: 10.1136/bmjgh-2018-001260. PMID: 31406598; PMCID: PMC6666811. 3. Taquette, S. R., & Borges da Matta Souza, L. M. (2022). Ethical Dilemmas in Qualitative Research: A Critical Literature Review. International Journal of Qualitative Methods, 21. **https://doi.org/10.1177/16094069221078731** 4. Katharine S Wright, Ethical research in global health emergencies: making the case for a broader understanding of 'research ethics', International Health, Volume 12, Issue 6, November 2020, Pages 515–517, **https://doi.org/10.1093/inthealth/ihaa053** 5. Li F, Ruijs N, Lu Y. Ethics & AI: A Systematic Review on Ethical Concerns and Related Strategies for Designing with AI in Healthcare. AI. 2023; 4(1):28-53. **https://doi.org/10.3390/ai4010003** 6. Grewal A, Kataria H, Dhawan I. Literature search for research planning and identification of research problem. Indian J Anaesth. 2016 Sep;60(9):635-639. doi: 10.4103/0019-5049.190618. PMID: 27729689; PMCID: PMC5037943. 7. Literature Search: Finding Information Effectively. National Institute of Education LibGuides Literature Search. **https://libguides.nie.edu.sg/literature_search** (accessed on 31 August 2024) 8. Selecting a Research Topic: Overview. MIT Libraries. Massachusetts Institute of Technology. **https://libguides.mit.edu/select-topic**			
Reference Book	Principles of Health Care Ethics. Ann Lloyd, Raanan Gillon			

POs Cos	PO1	PO2	PO3	PO4
CO1	1	1	1	3
CO2	1	1	1	3
CO3	1	1	1	3
CO4	1	1	1	3
CO5	1	1	1	3
Avg. PO attained	1.00	1.00	1.00	3.00

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 2	
1	Course Code	ETT1124	
2	Course Title	Introduction to Community, Pre- Hospital, Emergency Department Based care	
3	Credit	2	
4	Contact Hours (L-T-P)	2-0-0	
5	Course Status	Compulsory	
6	Course Objective	1- To enhance the knowledge of students on pre-hospital emergency care 2- To provide students with knowledge of appropriate communication modes while in pre-hospital care setting 3- To equipped students with the knowledge of community based emergency care 4- To enhance the knowledge of students about care provided in the Emergency Department and in the in-hospital setting.	
7	Course Outcome	At the end of course students will be able to: CO1: Describe the pre-hospital emergency care principles and the approach to emergency care in the pre-hospital setting. CO2: Describe the various modes of communications in pre-hospital emergency care CO3: Describe the principles community based emergency care including in medical, trauma, environmental, psychological pediatrics and geriatrics cases CO4: Describe the emergency department and its operation CO5: Describe the care given in the hospital environment.	
	Course Description	This course provide knowledge on community emergency care, pre-hospital emergency care, emergency department care and its operations & care given in the hospital.	
9	Outline Syllabus	**Theory**	
	Unit 1A	Introduction to Pre-hospital emergency care, Importance and scope Roles and Responsibilities of pre-hospital care providers	CO1
	Unit 1B	Patient Assessment in the pre-hospital emergency care Setting, including Scene survey and crime scene management	CO1
	Unit 1C	Primary survey, triaging the patient in field and critical interventions during the primary survey	CO1

	Unit 1D	Secondary principles and step survey	CO1
	Unit 1E	History taking and Vital Signs monitoring	CO1
	Unit 2A	Ambulance call centres and Modes of transferring data to the call centre and to the receiving hospital.	CO2
	Unit 2B	Provision of emergency care during transport and medical oversight	CO2
	Unit 2C	Transfer of care to emergency care Facilities and Handing over patients to the receiving facility	CO2
	Unit 3A	Community Based Emergency care principles	CO3
	Unit 3B	Emergencies that can be managed in the community and modes of provision of such care Enhancement of community health through involvement of paramedics	CO3
	Unit 3C	Use of equipment and procedures/scope of community-based emergency care	CO3
	Unit 3D	Community health enhancement and prevention of emergencies in the community	CO3
	Unit 4A	Emergency department protocols for Medical, trauma and environmental emergencies and for Paediatric and geriatric patients	CO4
	Unit 4B	Overview of emergency department, Equipment and procedures in emergency department	CO4
	Unit 4C	Categorization of patients in the Emergency Department, ED layout and operations	CO4
	Unit 5A	Hospital based care in general wards	CO5
	Unit 5B	Hospital based care in intensive care units	CO5
	Unit 5C	Rapid response and code blue teams	CO5

Mode of Examination	Theory			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	1. Orkin A, VanderBurgh D, Ritchie S, Fortune M. Community-Based Emergency Care: An Open Report for Nishnawbe Aski Nation. Thunder Bay: Northern Ontario School of Medicine, 2014. www.nosm.ca/cbec 2. E. Roberts, N Mays. Can primary care and community-based models of emergency care substitute for the hospital accident and emergency (A & E) department? Health Policy. Volume 44, Issue 3. , June 1998, Pages 191-214 3. Nancy Caroline's Emergency Care in the Streets- ninth edition 4. Emergency Care and Transportation of the Sick and Injured by American Academy of Orthopedic Surgeons (AAOS)			

	5. Essential Procedures for Emergency, Urgent, and Primary Care Settings: A Clinical Companion. Theresa M. Campo, Keith A Lafferty, Jennifer L. Wilbeck, Jacob W. Ufberg
Reference Book	1. Nikhil Tambe. Emergency Medicine in India – A Dream. https://coreem.net/blog/random-foamed/em-in-india/ 2. Rajasulochana SR, Maurya DS. 108 in Crisis: Complacency and Compromise Undermine Emergency Services' Potential. Economic & Political Weekly. Vol. 53, Issue No. 25, 23 Jun, 2018

POs Cos	PO1	PO2	PO3	PO4
CO1	3	3	2	1
CO2	3	2	2	1
CO3	3	3	2	1
CO4	1	1	1	1
CO5	1	3	2	1
Avg. PO attained	2.20	2.40	1.80	1.00

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 2	
1	Course Code	ETT1125	
2	Course Title	Basic Principles of Management	
3	Credit	02	
4	Contact Hours (L-T-P)	1-1-0	
5	Course Status	Compulsory	
6	Course Objective	1. To provide knowledge on managerial skills in the setting of patient care 2. To create an understanding of the importance of critical thinking and decision during patient care activities 3. To emphasize the importance of effective communication in team dynamics and team effectiveness	
7	Course Outcome	At the end of course students will be able to: **CO1:** Describe the general management concepts for patient care in various emergency care environments **CO2:** Understand the implications of human resources, and operations, financial and marketing management in emergency care. **CO3:** Understand the importance and implications of decision making in emergency patient care settings **CO4:** Describe and explain the modes of communication in emergency care settings **CO5:** Appreciate the importance of understanding team dynamics and clear communication during emergency patient care.	
	Course Description	This course introduces students to management principles, critical thinking and decision making, team communication, and team dynamics and effectiveness so as to build up their managerial decision making skill and analytical skills allowing them to work more effectively in teams.	
9	Outline Syllabus		
	Unit 1A	Introduction of management and its basic principles General Management concepts	CO1
	Unit 1B	General management concepts for emergency care professionals	CO1
	Unit 1C	Operations management in emergency care situations, such as in pre-hospital care, community emergency care and hospital-based emergency care.	CO2
	Unit 2A	Human Resource management for emergency care environments	CO2
	Unit 2B	Financial Management of emergency care services	CO2

	Unit 2C	Marketing Management of emergency care	CO2
	Unit 3A	Scenario based Critical thinking and decision making in emergency pre-hospital care settings	CO3
	Unit 3B	Critical thinking and decision making in hospital emergency care settings	CO3
	Unit 3C	Critical thinking and decision making in Community based emergency care settings	CO3
	Unit 4A	Importance of Communication soft skills	CO4
	Unit 4B	Modes of communication, Communication in emergency pre-hospital community care and emergency in-hospital settings	CO4
	Unit 4C	Communication Etiquette, Clear and close loop communication	CO4
	Unit 5A	Team Dynamics and effectiveness	CO5
	Unit 5B	Scenarios based Communication training-1	CO5
	Unit 5C	Scenarios based Communication training-2	CO5

Mode of Examination	Theory			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	1. Nancy Caroline's Emergency Care in the Streets- ninth edition 2. Emergency Care and Transportation of the Sick and Injured by American Academy of orthopedic Surgeons (AAOS) 3. Clinical Methods: The History, Physical, and Laboratory Examinations. 3rd edition. Walker HK, Hall WD, Hurst JW, editors. Boston: Butterworths; 1990. 4. Decision Making in Management: Significance, Types, and Process. iCertglobal. https://www.icertglobal.com/decision-making-in-management/detail 5. Thornhill-Miller B, Camarda A, Mercier M, Burkhardt JM, Morisseau T, Bourgeois-Bougrine S, Vinchon F, El Hayek S, Augereau-Landais M, Mourey F, Feybesse C, Sundquist D, Lubart T. Creativity, Critical Thinking, Communication, and Collaboration: Assessment, Certification, and Promotion of 21st Century Skills for the Future of Work and Education. J Intell. 2023 Mar 15;11(3):54. doi: 10.3390/jintelligence11030054. PMID: 36976147; PMCID: PMC10054602. 6. Abreu, Jason; Baker, Susan; and Jayson-Polk, Ruth, "The Organizational Handbook to Promote Critical Thinking and Decision Making" (2017). Fischler College of Education: Student Articles. 19. https://nsuworks.nova.edu/fse_stuarticles/19			
Reference Book	1- Cardiovascular Emergencies, by Amal Mattu 2- Handbook of Pulmonary Emergencies by A. Medinger, S.V. Spagnolo 3- Patient Assessment Practice Scenarios by Les Hawthorne			

	4- Why Managers Should Involve Their Team in the Decision-Making Process. Havard Business School Online. Business Insights. https://online.hbs.edu/blog/post/team-decision-making and other links in this document. 5- David S. Bright, Anastasia H. Cortes. Principles of Management. 2019. https://openstax.org/books/principles-management/pages/1-introduction 6- Everhour blog: Project Management. Team Dynamics: Understanding and Improving Group Interactions. https://everhour.com/blog/team-dynamics/ 7- Team Dynamics: Problem-Solving and Decision Making. https://guides.himmelfarb.gwu.edu/teamdynamics/problem-solving-and-decision-making

POs Cos	PO1	PO2	PO3	PO4
CO1	1	1	1	1
CO2	1	1	1	1
CO3	2	2	2	1
CO4	2	2	2	1
CO5	2	2	3	1
Avg. PO attained	1.60	1.60	1.80	1.00

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 2	
1	Course Code	ETP1121	
2	Course Title	Gastrointestinal, Haematological, Renal and Urological Emergencies	
3	Credit	2	
4	Contact Hours (L-T-P)	0-0-4	
5	Course Status	Compulsory	
6	Course Objective	1. To apply theoretical knowledge to practical approach for assessment, diagnosis and treatment of disorders in gastrointestinal, hepatological, haematological, renal and urological systems. 2. To equip participants with the skills of recognition and interventions in gastrointestinal, hepatological, haematological, renal and urological disorders	
7	Course Outcome	At the end of course students will be able to: CO1: Demonstrate anatomical relationships for Gastrointestinal, hepatological, haematological, renal and urological disorders in simulated and clinical situations CO2: Demonstrate the ability to identify disorders in the clinical environment CO3: Demonstrate their ability to perform assessment and treatment procedures in simulated and clinical situations CO4: Demonstrate their ability to monitor patients with these disorders. CO5: Perform and analyse blood gases and acid base tests in patient with these disorders	
	Course Description	This course is designed for students gain familiarity with the procedures for patient assessment, diagnosis and critical interventions when managing patients with disorders of the gastrointestinal, hepatological, haematological, renal and urological systems	
9	Outline Syllabus	**Practical**	
		Practical Training- ED/ICU/Ambulance/community health clinic Posting/skill lab -66 hours	
	Unit-1A	Anatomical orientation to the Gastrointestinal, hepatological, Haematological, real and urological systems-1	CO1
	Unit-1B	Anatomical orientation to the Gastrointestinal, hepatological, Haematological, real and urological systems-2	CO1
	Unit-1C	Anatomical orientation to the Gastrointestinal, hepatological, Haematological, real and urological systems-3	CO1

	Unit-2A	Management of GI bleed, oesophageal varices, Mallory Weiss syndrome, haemorrhoids, PUD, cholecystitis, Appendicitis, Diverticulitis, pancreatitis, ulcerative colitis, and Chron's disease in simulated and clinical environments-1	CO2,CO3,CO4
	Unit-2B	Management of GI bleed, oesophageal varices, Mallory Weiss syndrome, haemorrhoids, PUD, cholecystitis, Appendicitis, Diverticulitis, pancreatitis, ulcerative colitis, and Chron's disease in simulated and clinical environments-2	CO2,CO3,CO4
	Unit-2C	Management of GI bleed, oesophageal varices, Mallory Weiss syndrome, haemorrhoids, PUD, cholecystitis, Appendicitis, Diverticulitis, pancreatitis, ulcerative colitis, and Chron's disease in simulated and clinical environments-3	CO2,CO3,CO4
	Unit-3A	Management of Gastroenteritis, hepatitis and bowel obstructions, Neonatal jaundice, biliary atresia, ingestion of foreign bodies, Meckel diverticulum, and hepatological disorders. Anaemia, Leukemia, Lymphoma, Polycythemias, Hemophilia, Sickle cell disease, myeloma in simulated and clinical environments-1	CO2,CO3,CO4
	Unit-3B	Management of Gastroenteritis, hepatitis and bowel obstructions, Neonatal jaundice, biliary atresia, ingestion of foreign bodies, Meckel diverticulum, and hepatological disorders. Anaemia, Leukemia, Lymphoma, Polycythemias, Hemophilia, Sickle cell disease, myeloma in simulated and clinical environments-2	CO2,CO3,CO4
	Unit-3C	Management of Gastroenteritis, hepatitis and bowel obstructions, Neonatal jaundice, biliary atresia, ingestion of foreign bodies, Meckel diverticulum, and hepatological disorders. Anaemia, Leukemia, Lymphoma, Polycythemias, Hemophilia, Sickle cell disease, myeloma in simulated and clinical environments-3	CO2,CO3,CO4
	Unit-4A	Management of Acute renal failure, chronic renal failure, stones and urinary tract infections, Glomerulonephritis, Polycystic kidney disease, urinary incontinence and acute urinary retention in simulated and clinical environments-1	CO2,CO3,CO4
	Unit-4B	Management of Acute renal failure, chronic renal failure, stones and urinary tract infections, Glomerulonephritis, Polycystic kidney disease, urinary incontinence and acute urinary retention in simulated and clinical environments-2	CO2,CO3,CO4

	Unit-4C	Management of Acute renal failure, chronic renal failure, stones and urinary tract infections, Glomerulonephritis, Polycystic kidney disease, urinary incontinence and acute urinary retention in simulated and clinical environments-3	CO2,CO3,CO4
	Unit-5A	Practical performance of Blood gases and acid base analysis in normal persons and during disease-1	CO5
	Unit-5B	Practical performance of Blood gases and acid base analysis in normal persons and during disease-2	CO5
	Unit-5C	Practical performance of Blood gases and acid base analysis in normal persons and during disease-3	CO5

Mode of Examination	Practical			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	- Nancy Caroline's Emergency Care in the Streets- ninth edition			
Reference Book	1. Emergency Care and Transportation of the Sick and Injured by American Academy of Orthopaedic Surgeons (AAOS) 2. Clinical Methods: The History, Physical, and Laboratory Examinations. 3rd edition. Walker HK, Hall WD, Hurst JW, editors. Boston: Butterworths; 1990			

POs Cos	PO1	PO2	PO3	PO4
CO1	2	1	1	1
CO2	3	2	1	1
CO3	3	3	2	1
CO4	3	3	1	1
CO5	3	3	2	1
Avg. PO attained	2.80	2.40	1.40	1.00

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 2	
1	Course Code	ETP1122	
2	Course Title	Basic and Advanced Airway Management, Emergency Trauma Care Management	
3	Credit	3	
4	Contact Hours (L-T-P)	0-0-6	
5	Course Status	Compulsory	
6	Course Objective	1. To practice the techniques and procedures skills used in patient's airway for its patency assessment, opening, clearing and maintaining with adjuncts. 2. To Practice usage of different type of oxygen delivery devices and ventilation techniques. 3. To practice the basic to advanced airway management techniques. 5. To learn community first responder skills and the skills of basic trauma care assessment and management	
7	Course Outcome	At the end of the course, students will be able to: CO1: Demonstrate airway assessment and opening, clearing and maintenance of the airway by using basic/ advanced airway adjuncts CO2: Demonstrate the usage of pharmacological agents in airway management CO3: Demonstrate the assessment and interventions in patient at community level provider CO4: Demonstrate the systematic patient assessment of a trauma victim CO5: Demonstrate techniques in immobilization of body and body parts	
	Course Description	This course is designed to introduce and to develop the knowledge and skills of the students on basic and advanced airway management, community level provider skills and trauma patient assessment and interventions skills	
9	Outline Syllabus	Practical	
	Unit-1A	• Anatomy of the upper and lower airways • Airway adjuncts, maneuvers, supplemental oxygen	CO1
	Unit-1B	• Oxygen delivery devices.	CO1
	Unit-1C	• Assisted and artificial ventilation	CO1
	Unit-2A	• Endotracheal Intubation	CO1

		• Oro-tracheal intubation, Naso-tracheal intubation	
	Unit-2B	• Trans-illumination technique of intubation, video laryngoscopy, Extubation, Pediatric intubation	CO1
	Unit-2C	• Supraglotic and Multi-lumen airway	CO1
	Unit-3A	• Usage of Pharmacological adjuncts for airway management	CO2
	Unit-3B	• Surgical technique of airway management	CO1
	Unit-3C	• Special patient considerations	CO1
	Unit-4A	• Community level first responder training-1	CO3
	Unit-4B	• Community level first responder training-2	CO3
	Unit-4C	• Community level first responder training-3	CO3
	Unit-5A	• Assessment of a trauma patient	CO4
	Unit 5B	• Immobilization techniques and transportation • Bleeding control • pain management,	CO5
	Unit5C	• Specific injuries in trauma patient • Assessment and interventions • Usage of equipment for management of trauma victims	CO5

Mode of Examination	Practical			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	1. Mosby's Paramedic Textbook 2. First Aid and Emergency Care- N Harris 3. Emergency Responder: Advanced First Aid for Non-EMS Personnel (EMR)-Chris Le Baudour			
Reference Book	6. Indian Guidelines on Basic Life Support. Garg R, Ahmed SM, Kapoor MC, Mishra BB, Rao SC, Kalandoor MV, Divatia JV, Singh B. Basic cardiopulmonary life support (BCLS) for cardiopulmonary resuscitation by trained paramedics and medics outside the hospital. Indian J Anaesth. 2017 Nov;61(11):874-882. Doi: 10.4103/ija.IJA_637_17. PMID: 29217852; PMCID: PMC5703000. 7. Garg R, Ahmed SM, Kapoor MC, Rao SC, Mishra BB, Kalandoor M V, Singh B, Divatia JV. Comprehensive cardiopulmonary life support (CCLS) for cardiopulmonary resuscitation by trained paramedics and medics inside the hospital. Indian J Anaesth 2017;61:883-94.			

	8. Kumar A, Aggarwal P. Basic life support. Natl Med J India 2023;36:29–35. DOI: 10.25259/NMJI_581_21 9. Nancy Caroline's Emergency Care in the Streets- ninth edition 10. First Aid Manual 11th Edition. Written for St John Ambulance, St Andrew's Ambulance Association, and British Red Cross

POs Cos	PO1	PO2	PO3	PO4
CO1	3	3	2	1
CO2	2	3	2	1
CO3	3	3	2	1
CO4	3	2	2	1
CO5	2	3	2	1
Avg. PO attained	2.60	2.80	2.00	1.OO

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 2	
1	Course Code	ETP1123	
2	Course Title	Community, Pre- Hospital, Emergency Department Based care	
3	Credit	1	
4	Contact Hours (L-T-P)	0-0-2	
5	Course Status	Compulsory	
6	Course Objective	To practice students on scene survey, patient assessment and interventions in pre-hospital and community based care To practice students on hospital and emergency based care skills in patient assessment and practice procedures and skills of patient care	
7	Course Outcome	At the end of the course, students will be able to: CO1: Demonstrate the conduct of scene survey and patient assessment in the pre-hospital care setting CO2: Identify life threatening conditions and interventions in pre-hospital care CO3: Demonstrate the scene survey, patient assessment and treatment of a patient in the Emergency Department CO4: Identify life threatening conditions and interventions in hospital care settings CO5: Demonstrate assessment and interventions for emergency care in community health facilities	
	Course Description	This course empowers students to confidently perform patient assessments and conduct of critical interventions for emergencies in a variety of healthcare environments.	
9	Outline Syllabus	Practical	
	Unit-1A	Scene survey,	CO1
	Unit-1B	patient assessment in pre-hospital care settings,	CO1
	Unit-1C	Communication to call centre and receiving hospitals	CO1
	Unit-2A	Equipment and Interventions in Pre-hospital care settings-1	CO2
	Unit-2B	Equipment and Interventions in Pre-hospital care settings-2	CO2
	Unit-2C	Equipment and Interventions in Pre-hospital care settings-3	CO2
	Unit-3A	Equipment in hospital and Patient assessment in the Emergency Departments-1	CO3
	Unit-3B	Equipment in hospital and Patient assessment in the Emergency Departments-2	CO3

	Unit-3C	Equipment in hospital and Patient assessment in the Emergency Departments-3	CO3
	Unit-4A	Interventions in ED, Wards and Day care	CO4
	Unit-4B	Interventions in ED, Wards and Day care	CO4
	Unit-4C	Interventions in ED, Wards and Day care	CO4
	Unit-5A	Community based patient care- Medical	CO5
	Unit-5B	Community based patient care-Trauma	CO5
	Unit-5C	Community based patient care- Environmental emergencies	CO5

Mode of Examination	Practical			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	Nancy Caroline's Emergency Care in the Streets			
Reference Book	1- Workbook for Anatomy, Physiology & Disease: Foundation for the Health Professions by Deborah Roger and Nia Bullock 2- Emergency Care and Transportation of the Sick and Injured by American Academy of Orthopaedic Surgeons (AAOS) 3- Patient Assessment Practice Scenarios by Les Hawthorne 4- Marcus Ong. Pre-hospital Emergency care in Singapore (slide set) 5- World Health Organisation. Prehospital trauma care systems 6- Handbook of Emergency Department Procedures. John Bache, Carolyn Armitt, Cathy Gadd			

POs Cos	PO1	PO2	PO3	PO4
CO1	3	2	2	1
CO2	2	3	2	1
CO3	3	3	2	1
CO4	3	3	2	1
CO5	3	3	2	1
Avg. PO attained	2.80	2.80	2.00	1.00

3rd Semester

Program Structure Template
School of Allied Health Sciences
Bachelor of Science (Emergency and Trauma Care Technology)

Batch: 2025-29
TERM:3

Sr. No.	Subject Code	Subject	Teaching Load			Credit	Core/Elective/ Pre Requisite/Co Requisite	Type of Course CC/AEC C/SEC/DSE
			L	T	P			
Theory								
1	ETT2201	Head and Neck Trauma	1	2	0	3	Major	CC
2	ETT2202	Neurological Emergencies	1	1	0	2	Major	CC
3	ETT2203	Obstetrics and Gynaecological Emergencies	1	1	0	2	Major	CC
4	ETT2204	Endocrine Emergencies, and Emergency Medications	1	1	0	2	Major	CC
5	ETT2205	Ambulance Operations, and Disaster Management	1	1	0	2	Major	CC
6	ETT2206	Research- Questions, Methodology and Data collection	1	1	0	2	Major	CC
Practical								
7	ETP2201	Nervous system, Head and Neck, - demonstrations of anatomy, Physiology, Clinical Manifestation and Treatment	0	0	4	2	Major	CC
8	ETP2202	Obstetrics and Gynaecological Emergencies	0	0	4	2	Major	CC
9	ETP2203	Endocrine Emergencies	0	0	4	2	Major	CC
10	ETP2204	Basic Cardiac Life Support Instructor Program	0	0	2	1	Minor	CC
Total Hours			06	07	14	20		

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 3	
1	Course Code	ETT2201	
2	Course Title	Head and Neck Trauma	
3	Credit	3	
4	Contact Hours (L-T-P)	1-2-0	
5	Course Status	Compulsory	
6	Course Objective	To provide knowledge on assessment and treatment of emergency disorders and injuries of the head and neck including eyes, nose, ear, mouth and throat.	
7	Course Outcome	At the end of the course, participants will be able to CO1: Describe the anatomical part of head and neck CO2: Describe the anatomical part of eye, ear, nose and throat CO3: Describe the clinical manifestation of injuries to the Head, neck, eyes, nose, ears and throat CO4: Describe assessment and treatment of the skull and intracranial injuries. CO5: Describe the assessment and treatment of the injuries to the neck, eyes, ears, nose and throat	
	Course Description	This course equips students with the knowledge of assessment and treatment of the illnesses of head and neck including the eyes, ears, nose and throat	
9	Outline Syllabus	Theory	
	Unit 1A	Introduction Anatomy and Physiology of head and Neck	CO1
	Unit 1B	Anatomy and physiology of: Eyes Ears Nose Mouth and Throat Face	CO2
	Unit 1C	Anatomy and physiology of Intracranial structures	CO1
	Unit 2A	Assessment and management of Scalp and skull Injuries	CO3
	Unit 2B	Assessment and management of Traumatic brain injuries: • Concussion	CO3

		• Contusion	
	Unit 2C	Assessment and management of: Extra Dural Haemorrhage Sub-Dural Haemorrhage Sub-Arachnoid Haemorrhage Brain Herniation Diffuse brain injuries	CO3
	Unit 3A	Assessment and management of Focal brain injuries	CO3, CO4
	Unit 3B	Assessment and management of intra-cranial hemorrhage	CO3, CO4
	Unit 3C	Assessment and management of Soft tissue injuries to the head and neck	CO3, CO4
	Unit 4A	Assessment of Special Injuries/illnesses in the neck	CO3
	Unit 4B	Management of Special Injuries/illnesses in the neck	CO4
	Unit 4C	Assessment and management of eye emergencies	CO3, CO5
	Unit 5A	Assessment and management of Special injuries/illnesses to the ears	CO4
	Unit 5B	Assessment and management of Special injuries/illnesses to the nose	CO5
	Unit 5C	Assessment and management of Special injuries/illnesses to the throat	CO5

Mode of Examination	Theory			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	1. Nancy Caroline's Emergency Care in the Streets- ninth edition			
Reference Book	1. Emergency Care and Transportation of the Sick and Injured by American Academy of Orthopaedic Surgeons (AAOS) 2. Seikel, JA., Drumright, DG., & Hudock, DJ., 2019, Anatomy and physiology for speech, language and hearing, 6th edn, Plural Publishing Inc. 3. Bruce M. Wenig, Juan C Hernandez-Prera. Atlas of Head and Neck Pathology, 4th Edition 4. Workbook for Anatomy, Physiology & Disease: Foundation for the Health Professions by Deborah Roiger and Nia Bullock 5. Patient Assessment Practice Scenarios by Les Hawthorne			

POs Cos	PO1	PO2	PO3	PO4
CO1	2	2	2	1

CO2	2	2	2	1
CO3	3	2	2	1
CO4	3	3	2	1
CO5	3	3	2	1
Avg. PO attained	2.60	2.40	2.00	1.00

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 3	
1	Course Code	ETT2202	
2	Course Title	Neurological Emergencies	
3	Credit	2	
4	Contact Hours (L-T-P)	1-1-0	
5	Course Status	Compulsory	
6	Course Objective	To provide knowledge on the assessment, identification and treatment of nervous systems disorders.	
7	Course Outcome	At the end of the course, the students will be able to: CO1: Describe the anatomical parts and physiology of the nervous system. CO2:Describe the patient assessment approach with neurological disorders/abnormalities CO3: Describe in-hospital and pre-hospital care interventions for these neurological disorders and the documentation of the findings and management CO4: Describe the assessment and treatment of the common neurological emergencies in adults CO5: Describe the assessment and treatment of paediatric neurological conditions/disorders.	
	Course Description	This course will enable students to assess and treat common emergency disorders of the nervous system in both adults and children.	
9	Outline Syllabus	Theory	
	Unit-1A	• Introduction to nervous system • Anatomy and physiology of the nervous system: • Central nervous system • Peripheral nervous system	CO1
	Unit-1B	• Patient assessment in neurological emergencies / illnesses • Scene Survey • Primary Survey	CO2
	Unit-1C	• Secondary Survey • Reassessment Survey	CO2
	Unit-2A	• Interventions in neurological patients • In hospital interventions • Pre-hospital interventions	CO3

	Unit-2B	Communication and documentation in neurological illnesses	CO3
	Unit-2C	Aetiology, Pathology, clinical Manifestation & Treatment of common neurological emergencies-1 • Stroke • Transient ischemic attack	CO3, CO4
	Unit-3A	Aetiology, Pathology, clinical Manifestation & Treatment of common neurological emergencies-2 • Coma • Seizures • Status epilepticus • Syncope	CO3, CO4
	Unit-3B	Aetiology, Pathology, clinical Manifestation & Treatment of common neurological emergencies-3 • Headache • Dementia / Delirium • Neoplasms	CO3, CO4
	Unit-3C	• Case based study- Neurological disorder • Assessment and treatment	CO3, CO4
	Unit-4A	Aetiology, Pathology, clinical Manifestation & Treatment of Neurological disorders:4 • Multiple Sclerosis • Guillain Barre syndrome • Amyotrophic lateral sclerosis (ALS) • Parkinson's disease	CO3, CO4
	Unit-4B	Aetiology, Pathology, clinical Manifestation & Treatment of Demyelinating and motor neuron disorders:5 • Cranial nerve disorders • Dystonia • CNS infection/inflammation • Abscess	CO3,CO4
	Unit-4C	• Poliomyelitis • Post-polio Syndrome • Peripheral neuropathy	CO3, CO4
	Unit-5A	Paediatric neurological conditions: • Hydrocephalus • Spina Bifida • Cerebral Palsy	CO3, CO5
	Unit-5B	Case based study of neurological disorders- Assessment and treatment-2	CO3, CO4,CO5
	Unit-5C	Case based study of neurological disorders- Assessment and treatment-3	CO3, CO4, CO5

Mode of Examination	Theory			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	1. Nancy Caroline's Emergency Care in the Streets 2. Michael Rubin. Overview of Peripheral Nervous System Disorders. MSD Manual. https://www.msdmanuals.com/en-sg/professional/neurologic-disorders/peripheral-nervous-system-and-motor-unit-disorders/overview-of-peripheral-nervous-system-disorders 3. Shakkottai VG, Lomen-Hoerth C. Nervous System Disorders. In: Hammer GD, McPhee SJ. eds. Pathophysiology of Disease: An Introduction to Clinical Medicine, 8e. McGraw-Hill Education; 2019. Accessed September 01, 2024. https://accessmedicine.mhmedical.com/content.aspx?bookid=2468&sectionid=198220873			
Reference Book	5. Emergency Care and Transportation of the Sick and Injured by American Academy of Orthopaedic Surgeons (AAOS) 6. Workbook for Anatomy, Physiology & Disease: Foundation for the Health Professions by Deborah Roiger and Nia Bullock 7. Patient Assessment Practice Scenarios by Les Hawthorne 8. Physiopaedia – Neurological Disorders. https://www.physio-pedia.com/Neurological_Disorders Physiopaedia			

POs Cos	PO1	PO2	PO3	PO4
CO1	2	2	2	1
CO2	3	2	2	1
CO3	2	3	2	1
CO4	3	3	2	1
CO5	3	3	2	1
Avg. PO attained	2.60	2.60	2.00	1.00

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 3	
1	Course Code	ETT2203	
2	Course Title	Obstetrics and Gynaecological Emergencies	
3	Credit	2	
4	Contact Hours (L-T-P)	1-1-0	
5	Course Status	Compulsory	
6	Course Objective	1. To provide knowledge of male and female reproductive system 2. To provide knowledge on assessment, identification and treatment of emergency disorders of the male and female reproductive system 3. To understand anatomical and physiological changes during pregnancy and assist normal and abnormal labor and manage complications of these 4. To provide knowledge about emergency pre and post natal disorders	
7	Course Outcome	Participants will be able to: CO1: Describe the anatomy and physiology of the male and female reproductive system. CO2: Describe the patient assessment approach in male and female patients and the treatment of these disorders. CO3: Describe the assessment and management of sexual assault. CO4: Describe the assessment and management of pregnant patient, trauma in pregnancy CO5: Describe the steps in assisting labour and the assessment and treatment of complications of labour and post-delivery care.	
	Course Description	This course is designed for students to provide theoretical comprehensive knowledge on reproductive systems disorders, gynecological and obstetrical emergencies /complications and child birth assistance in normal and abnormal deliveries	
9	Outline Syllabus	Theory	
	Unit-1A	Anatomy and physiology of the male reproductive system	CO1
	Unit-1B	Aetiology, Pathology, Clinical Manifestations & Treatment of the specific emergencies and injuries to the male reproductive systems	CO2
	Unit-1C	Anatomy and physiology of the female reproductive system	CO1
	Unit-2A	Gynecology- Menstruation and pathophysiology	CO2

	Unit-2B	Assessment of the patient with gynecological illness	CO2
	Unit-2C	General principles of treatment of gynecologic disorders	CO2
	Unit-3A	Aetiology, Pathology, Clinical Manifestations & Treatment of the specific gynecological emergencies illnesses, including injuries-1	CO2
	Unit3B	Aetiology, Pathology, Clinical Manifestations & Treatment of the specific gynecological emergencies illnesses, including injuries-2	CO2
	Unit-3C	Sexual assault	CO3
	Unit-4A	Conception, gestation and Pregnancy Physiological changes during pregnancy	CO4
	Unit-4B	Medical conditions affected by pregnancy and Complications of pregnancy	CO4
	Unit-4C	Assessment of pregnant patient	C04
	Unit-5A	1- Child birth, abnormal deliveries, complications of labor and delivery 2- Trauma in Pregnancy	CO4, CO5
	Unit-5B	Emergency pharmacology in pregnancy	CO5
	Unit-5C	Post-delivery care	CO5

Mode of Examination	Theory			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	1. Nancy Caroline's Emergency Care in the Streets- ninth edition 2. Emergency Care and Transportation of the Sick and Injured by American Academy of Orthopaedic Surgeons (AAOS) 3. Anatomy and Physiology of the Female Reproductive System. Anatomy and Physiology II. https://courses.lumenlearning.com/suny-ap2/chapter/anatomy-and-physiology-of-the-female-reproductive-system/ 4. Nappi, L., Sorrentino, F., Greco, F., Vona, L., Zullo, F.M., Bettocchi, S. (2023). Pathophysiology of Female Reproduction and Clinical Management. In: Bettocchi, C., Busetto, G.M., Carrieri, G., Cormio, L. (eds) Practical Clinical Andrology. Springer, Cham. https://doi.org/10.1007/978-3-031-11701-5_16 Gurung P, Yetiskul E, Jialal I. Physiology, Male Reproductive System. [Updated 2023 May 1]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK538429/			

Reference Book	1. Anatomy & Physiology of the Male &Female Reproductive System. Lecture Notes. https://conursing.uobaghdad.edu.iq/wp-content/uploads/sites/20/2019/09/Anatomy-Physiology-of-the-Male-Female-Reproductive-System.pdf 2. The male reproductive system: An overview of common problems. Sanjiva Wijesinha Catherine N Kirby, Leon Piterman. Australian Family Physician. Volume 42, Issue 5, May 2013

POs Cos	PO1	PO2	PO3	PO4
CO1	2	2	2	1
CO2	3	3	2	1
CO3	3	3	2	1
CO4	3	3	2	1
CO5	3	3	2	1
Avg. PO attained	2.80	2.80	2.00	1.00

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 3	
1	Course Code	ETT2204	
2	Course Title	Endocrine emergencies, and Emergency Medications	
3	Credit	02	
4	Contact Hours (L-T-P)	1-1-0	
5	Course Status	Compulsory	
6	Course Objective	1. To provide knowledge to the students on endocrine system anatomy and physiology, disorders, their identification and treatment 2. To provide knowledge on emergency drugs used in different pathologies/disorders/conditions	
7	Course Outcome	At the end of course students will be able to: CO1: Describe the anatomy and physiology of the endocrinal glands in the human body CO2: Describe the assessment and treatment of the endocrine emergencies in the human body. CO3: Describe the drugs used in an emergency department and their use in management of emergencies CO4: Describe the preparation of dosage, documentation, and administration of drugs in emergencies CO5: Discuss possible errors in use of medications for emergencies	
	Course Description	This course is designed to familiarize the students with endocrinological system disorders and their treatment and in the use of emergency drugs	
9	Outline Syllabus	Compulsory	
	Unit-1A	Anatomy and physiology of the endocrine system	CO1
	Unit-1B	Aetiology, Pathology, Clinical Manifestation & Treatment of • Diabetes mellitus • Hyperosmolar non ketotic coma • Diabetic Ketoacidosis • Hypoglycemia	CO2
	Unit-1C	Aetiology, Pathology, Clinical Manifestation & Treatment of • Adrenal Insufficiency • Cushing's syndrome • Hyperthyroidism • Hypothyroidism	CO2

	Unit-2A	Pharmacology of commonly used emergency drugs - • Introduction • Indications for use • Dosages	CO3
	Unit-2B	Routes of drug administration for the pharmacological agents for emergency disorders	CO3, CO4
	Unit-2C	Adverse and side effect of drug used in emergency management	CO3
	Unit-3A	Drugs commonly used in the Emergency Department and in emergency ambulances and their dosages	CO3, CO4
	Unit-3B	Drug dose calculation for the drugs used for emergency disorders	CO4
	Unit-3C	Preparation of injectables and infusions	CO4
	Unit-4A	Review of prescription writing and interpretation emergency care-1	CO4
	Unit-4B	Review of prescription writing and interpretation emergency care-2	CO4
	Unit-4C	Review of prescription writing and interpretation emergency care-3	CO4
	Unit-5A	Common Medication errors in managing emergencies and strategies to reduce these-1	CO5
	Unit-5B	Common Medication errors in managing emergencies and strategies to reduce these-2	CO5
	Unit-5C	Common Medication errors in managing emergencies and strategies to reduce these-3	CO5

Mode of Examination	Theory			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	1. Openstax books. Anatomy and Physiology 2e. An Overview of the Endocrine System. https://openstax.org/books/anatomy-and-physiology-2e/pages/17-1-an-overview-of-the-endocrine-system 2. Open Resources for Nursing (Open RN); Ernstmeyer K, Christman E, editors. Nursing Pharmacology [Internet]. 2nd edition. Eau Claire (WI): Chippewa Valley Technical College; 2023. Chapter 9 Endocrine System. Available from: https://www.ncbi.nlm.nih.gov/books/NBK595005/ 3. Paramedic and Emergency Pharmacology Guidelines. Sonja Maria, Marc Colbeck, Matthew Caffey.			

Reference Book	1. Physiopedia. Metabolic and Endocrine Disorders. https://www.physio-pedia.com/Metabolic_and_Endocrine_Disorders 2. Essential Concepts in Anatomy and Pathology for Undergraduate Revision by Aida Lai

POs Cos	PO1	PO2	PO3	PO4
CO1	2	2	2	1
CO2	3	3	2	1
CO3	2	3	2	1
CO4	1	3	1	1
CO5	1	3	1	2
Avg. PO attained	1.80	2.80	1.60	1.20

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 3	
1	Course Code	ETT2205	
2	Course Title	Ambulance Operations, and Disaster Management	
3	Credit	2	
4	Contact Hours (L-T-P)	1-1-0	
5	Course Status	Compulsory	
6	Course Objective	1. To provide knowledge on ambulance operations and management of an Emergency Ambulance Service 2. To provide knowledge about disasters and their management, including on-scene care and roles of medical and ambulance teams at a disaster site	
7	Course Outcome	At the end of the course students will be able to: CO1: Describe the various aspects of ambulance operations and management of an Emergency Ambulance Service CO2: Describe types and effects of disasters CO3: Describe the incident management system for disasters and the roles and organization of medical and ambulance teams at the disaster site CO4: Describe hazards that may be encountered at disaster sites and safety measures to be employed. CO5: Describe crime scenes and how a paramedic should work at crime scenes	
	Course Description	This course is designed for students to be familiar with the ambulance operations and disaster site operations	
9	Outline Syllabus	Theory	
	Unit 1A	Characteristics and Organization of Emergency Ambulance Services	CO1
	Unit-1B	Ambulance Operations	CO1
	Unit-1C	Ambulance equipment, checking and manpower staffing, Emergency vehicle and their maintenance, air medical transport	CO1
	Unit-2A	Disaster – Introduction and Type	CO2
	Unit-2B	Effects of disasters and the Disaster Management Cycle	CO2
	Unit 2-C	Characteristics of a Community's Disaster Action Plan, the Incident Command System and Roles of various disaster-response agencies	CO3
	Unit 3A	Roles of Medical Services in Disasters and Medical Support Organisation at disaster sites	CO3
	Unit-3B	Medical Support plan in different types of disasters	CO3
	Unit-3C	Mass casualty incident vs Disasters and the roles of medical services at MCIs	CO3

	Unit-4A	Triage during disasters	CO3
	Unit-4B	Hazardous material incidents	CO4
	Unit-4C	Decontamination and treatment	CO4
	Unit-5A	Psychological Support during disasters	CO4
	Unit-5B	Crime scene awareness and management- 1	CO5
	Unit-5C	Crime scene awareness and management- 2	CO5

Mode of Examination	Theory			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	1- Nancy Caroline's Emergency Care in the Streets- ninth edition 2- Emergency Care and Transportation of the Sick and Injured by American Academy of orthopedic Surgeons (AAOS)			
Reference Book	**1.** Emergency Care and Transportation of the Sick and Injured by American Academy of Orthopaedic Surgeons (AAOS) **2.** Introduction to Emergency Management and Disaster Science by Brenda D. Phillips, David M. Neal, Gary R. Webb. **3.** Disaster Management in India - Policies, Institutions, Practices **4.** by Rajendra K. Pandey **5.** EMS Crime Scene Responsibility by Timothy G. Price; Rory M. O'Neill. **6.** Emergency Medical Services in the Crime Scene by Michael R. Hartle, Jackie Smithson, Victor Weedn. **7.** Patient Assessment Practice Scenarios by Les Hawthorne **8.** Standard Protocols for Paramedics to Follow: GoAid Ambulance Service. https://www.goaid.in/protocols-for-paramedics/ **9.** Clinical Practice Guidelines of Emergency Medical Services. Saudi Red Crescent Authority. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.srca.org.sa/media/wikow4fj/clinical-practice-guidelines-of-ems.pdf			

POs Cos	PO1	PO2	PO3	PO4
CO1	2	2	1	1
CO2	2	2	1	2
CO3	1	2	2	2
CO4	2	1	1	2
CO5	3	3	1	2
Avg. PO attained	2.00	2.00	1.20	1.80

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 3	
1	Course Code	ETT2206	
2	Course Title	Research- Questions, Methodology and Data collection	
3	Credit	2	
4	Contact Hours (L-T-P)	1-1-0	
5	Course Status	Compulsory	
6	Course Objective	1. To provide knowledge on drafting of research questions and research methodology 2. To provide knowledge on data collection and data collection methods for conduct of research	
7	Course Outcome	At the end of course students will be able to: CO1: Describe how research questions may be formulated CO2: Describe research methodologies used in emergency care CO3 Describe the basics of determination of data points in a research study CO4: Describe the methods of data collection CO5: Draft a research proposal with the Research question, methodology, dataset and data collection methods.	
	Course Description	This comprehensive course is designed for students to be familiar with the process of drafting research questions, understanding current research methodologies in emergency care, data identification and collection for research.	
9	Outline Syllabus	Theory	
	Unit-1A	Research Question- Introduction	CO1
	Unit-1B	Research question formulation	CO1
	Unit-1C	Reviewing of research questions	CO1
	Unit-2A	Research methodologies- types currently used in emergency care	CO2
	Unit-2B	Choosing the research methodology for identified research questions- Diagnostic research	CO2
	Unit-2C	Choosing the research methodology for identified research questions- Therapeutic research	CO2
	Unit-3A	Quantitative and Qualitative Research	CO3
	Unit-3B	Determining data points- Quantitative research	CO3
	Unit-3C	Determining data points- Qualitative research	CO3
	Unit-4A	Methods of data collection	CO4
	Unit-4B	Data collection- Quantitative	CO4
	Unit-4C	Data collection- Qualitative	CO4
	Unit-5A	Drafting a Research proposal	CO5

	Unit-5B	Drafting Research proposal-1	CO5
	Unit-5C	Drafting Research proposal-2	CO5
	Unit-5D	Drafting Research proposal-3	CO5

Mode of Examination	Theory			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	1. Hamed Taherdoost. Data Collection Methods and Tools for Research; A Step-by-Step Guide to Choose Data Collection Technique for Academic and Business Research Projects. International Journal of Academic Research in Management (IJARM), 2021, 10 (1), pp.10-38. hal-03741847 3- chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://hal.science/hal-03741847v1/document 2. Bhandari, P. (2023, June 21). Data Collection | Definition, Methods & Examples. Scribbr. Retrieved August 29, 2024, from https://www.scribbr.com/methodology/data-collection/ 3. Research Methodology: Techniques and Trends. by Umesh Kumar B Dubey, D P Kothari. Chapman & Hall.			
Reference Book	1. How to Write a Research Question in 2024: Types, Steps, and Examples. Imed Bouchrika. Research. May 16, 2024. https://research.com/research/how-to-write-a-research-question 2. What is Research Methodology? Definition, Types, and Examples by Divya Sreekumar August 28, 2023. https://paperpal.com/blog/academic-writing-guides/what-is-research-methodology 3. How to Write Research Methodology in 2024: Overview, Tips, and Techniques by Imed Bouchrika. Research. May 16, 2024. https://research.com/research/how-to-write-research-methodology 4. What Is Research Methodology? A Plain-Language Explanation & Definition (With Examples) by Derek Jansen (MBA) and Kerryn Warren(PhD) | June 2020 (Last updated April 2023). https://gradcoach.com/what-is-research-methodology/ 5. Research methods for health care practice- Frances Griffiths			

POs Cos	PO1	PO2	PO3	PO4
CO1	1	1	1	3
CO2	1	1	1	3
CO3	1	1	1	3
CO4	1	1	1	3
CO5	1	1	1	3
Avg. PO attained	1.00	1.00	1.00	3.00

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 3	
1	Course Code	ETP2201	
2	Course Title	Nervous system, Head and Neck, - demonstrations of anatomy, Physiology, Clinical Manifestation and treatment	
3	Credit	2	
4	Contact Hours (L-T-P)	0-0-4	
5	Course Status	Compulsory	
6	Course Objective	1. To demonstrate the anatomical characteristics and relationships of the nervous system and of the head and neck, and its related structures to the students 2. To practice the skills and procedures of patient assessment, and treatment of nervous system disorders 3. To practice the skill and procedures of patient assessment, and treatment of head and neck and associated structure abnormalities/disorders and injuries	
7	Course Outcome	At the end of course Participants students will be able to: CO1: Demonstrate the structures of the nervous system in a simulated model CO2: Demonstrate structures of the head and neck including the eyes, ears, nose and throat. CO3: Demonstrate systematically the neurological assessment of a patient. CO4: Demonstrate their ability to management and initially treat nervous systems emergencies. CO5: Demonstrate their ability to assess and initially treat disorders of head and neck including the eyes, ears, nose and throat.	
	Course Description	This practical course allows students to identify anatomical structures in the nervous system and the head and neck and initiate the treatment of emergency disorders of these structures.	
9	Outline Syllabus	**Skill Lab and Hospital Posting/Ambulance posting**	
	Unit 1A	Identification of Nervous system structures	CO1
	Unit 1B	Demonstration of relationships of structures in the brain to peripheral structures and their physiological functions	CO1
	Unit 1C	Demonstration of sensory and motor functions in limbs to spinal cord structures	CO1
	Unit 2A	Demonstrate structures on scalp, face and neck and their neurological associations	CO1, CO2
	Unit 2B	Demonstration of structures of the eye and relationship to the cranial nerves	CO2

	Unit 2C	Demonstration of structures of the ears, nose and throat	CO2
	Unit 3A	Conducting assessment of conscious state and cranial nerves	CO3
	Unit 3B	Conducting assessment of motor and sensory aspects of peripheral nervous system	CO3
	Unit 3C	Conducting assessment of cerebellar functions and balance mechanisms	CO3
	Unit 4A	Demonstrate initial management of common neurological emergencies	CO4
	Unit 4B	Demonstrate initial assessment and management of patients with strokes, neurological infections, epilepsy and altered mental states	CO4
	Unit 4C	Demonstrate initial assessment and management of peripheral nervous system disorders	CO4
	Unit 5A	Demonstrate assessment of head and neck disorders and their initial management	CO5
	Unit 5B	Demonstrate assessment of eye disorders and their initial management	CO5
	Unit 5C	Demonstrate assessment of ear, nose and throat disorders and their initial management	CO5

Mode of Examination	Practical			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	1. Nancy Caroline's Emergency Care in the Streets 2. Emergency Care and Transportation of the Sick and Injured by American Academy of Orthopaedic Surgeons (AAOS) 3. The five-minute Neurological Examination by Ralph F. Józefowicz. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.urmc.rochester.edu/MediaLibraries/URMCMedia/neurosurgery/images/5-minute-neuro-exam-handout.pdf			
Reference Book	1. Workbook for Anatomy, Physiology & Disease: Foundation for the Health Professions by Deborah Roiger and Nia Bullock 2. Basic Emergency care Approach to the acutely ill and injured. World Health Organisation, International Federation for Emergency Medicine. International Committee for the Red Cross. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.medbox.org/preview/5c3592de-ae98-4c9f-9256-75fb1fcc7b87/doc.pdf 3. Patient Assessment Practice Scenarios by Les Hawthorne			

POs Cos	PO1	PO2	PO3	PO4
CO1	2	1	2	1
CO2	2	1	2	1
CO3	3	2	2	1
CO4	2	3	2	1
CO5	3	3	2	1
Avg. PO attained	2.40	2.00	2.00	1.00

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 3	
1	Course Code	ETP2202	
2	Course Title	Obstetrics and Gynaecological Emergencies	
3	Credit	2	
4	Contact Hours (L-T-P)	0-0-4	
5	Course Status	Compulsory	
6	Course Objective	1. To provide practical training in assessment and initial management of patients with male and female reproductive system disorders 2. To provide practical training in assessment and management of pregnant women with normal and complicated labour and assist in delivery.	
7	Course Outcome	At the end of the course participants will be able to: CO1: Demonstrate the structures of the male and female reproductive systems in an anatomical model CO2: Demonstrate the systematic initial assessment and management of the patients with male and female reproductive system disorders. CO3: Demonstrate assessment of a pregnant woman CO4: Demonstrate the procedures in assisting labour in normal and complicated pregnancies CO5: Demonstrate the assessment and initial management of the post-natal complications of labour and care of the newborn	
	Course Description	This course teaches the skills on assessment and initial management of patients with male and female reproductive system disorders. It also covers the initial management of normal and abnormal pregnancies, including managing the process of delivery.	
9	Outline Syllabus	**Practical- Skill lab and Hospital Posting/Ambulance posting**	
	Unit 1A	Identification of the anatomical structures in the male and female reproductive system in an anatomical model	CO1
	Unit 1 B	Identifying the features that may be encountered in normal and abnormal pregnancy	CO1
	Unit 1C	Identifying the features that may be encountered in gynecological disorders	CO1
	Unit 2A	Systematic assessment of the male reproductive system	CO2
	Unit 2B	Systematic assessment of the female reproductive system	CO2
	Unit 2C	Initial management of patients with gynecological emergencies	CO2

	Unit 3A	Assessment of a pregnant pre-term women	CO3
	Unit 3B	Assessment of a pregnant woman at term	CO3
	Unit 3C	Assessment of a woman with an abnormal pregnancy	CO3
	Unit 4A	Management of normal labour	CO4
	Unit 4B	Assisting in management of abnormal labour	CO4
	Unit 4C	Familiarization with equipment for management of labour	CO4
	Unit 4D	Management of pre-eclampsia, eclampsia and miscarriages	CO4
	Unit 5A	Post-partum haemorrhage and its initial management	CO5
	Unit 5B	Other post-partum complications of pregnancy and their initial management	C)5
	Unit 5C	Assessment and management of the new born baby	CO5

Mode of Examination	Practical			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	1. Nancy Caroline's Emergency Care in the Streets 2. Emergency Medicine Practice: An Evidence-Based Approach To Male Urogenital Emergencies. https://www.ebmedicine.net/topics/hepatic-renal-genitourinary/male-urogenital-emergencies			
Reference Book	1. Emergency Care and Transportation of the Sick and Injured by American Academy of Orthopaedic Surgeons (AAOS) 2. Workbook for Anatomy, Physiology & Disease: Foundation for the Health Professions by Deborah Roiger and Nia Bullock 3. Patient Assessment Practice Scenarios by Les Hawthorne 4. Health Assessment Guide for Nurses. Chapter 16: Focused Assessment: Reproductive Assessment. https://pressbooks.montgomerycollege.edu/healthassessment/chapter/focused-assessment-reproductive-assessment/ 5. Practical Management in Reproductive Medicine. Evidence- and Experience-Based Guidance. By David J. Cahill			

POs Cos	PO1	PO2	PO3	PO4
CO1	2	2	2	1
CO2	3	3	2	1
CO3	3	2	2	1
CO4	3	3	2	1
CO5	3	3	2	1
Avg. PO attained	2.80	2.60	2.00	1.00

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 3	
1	Course Code	ETP2203	
2	Course Title	Endocrine Emergencies	
3	Credit	2	
4	Contact Hours (L-T-P)	0-0-4	
5	Course Status	Compulsory	
6	Course Objective	1. To correlate endocrine organs in anatomical models with function 2. To practice the assessment and treatment of a patient with diabetic emergencies 3. To practice the assessment and treatment of patients with other endocrine emergencies.	
7	Course Outcome	At the end of the course, participants will be able to: CO1: Demonstrate the clinical features of diabetes complications in patients CO2: Demonstrate the clinical features of disorders of other endocrine glands such as thyroid disorders, adrenal disorders and pituitary disorders CO3:Demonstrate the systematic assessment and initial care of patients with diabetes mellitus and its complications CO4: Demonstrate the systematic assessment and initial care of patients with other endocrinal emergencies. CO5: Demonstrate common procedures and treatment regimens used in assessment and initial management of patients with endocrinal emergencies	
	Course Description	This is a hands-on program covering the initial assessment and management of patients with diabetic and other endocrine emergencies.	
9	Outline Syllabus		
	Unit 1A	Demonstrate signs and symptoms of diabetes mellitus and effect on target organs in stable diabetic patients	CO1
	Unit 1 B	Demonstrate signs and symptoms in diabetic patients with hypoglycaemia	CO1
	Unit 1C	Demonstrate signs and symptoms in patients with hyperglycaemic emergencies	CO1
	Unit 2A	Demonstration of initial assessment of thyroid disorders	CO2
	Unit 2B	Demonstration of initial assessment of adrenal disorders	CO2
	Unit 2C	Demonstration of initial assessment of pituitary disorders	CO2

	Unit 3A	Demonstrate systematic assessment and initial care of diabetic patient with dermatological, eye and neurological complications	CO3
	Unit 3B	Demonstrate systematic assessment and initial care of diabetic patient with renal disorders and cardiovascular complications	CO3
	Unit 3C	Systematic assessment and initial care of patients with hypoglycemia and hyperglycemic emergencies	CO3
	Unit 4A	Demonstrate initial care of patient with thyroid disorders	CO4
	Unit 4B	Demonmstrate initial care of patients with adrenal disorders	CO4
	Unit 4C	Demonstrate initial care of patients with pituitary disorders	CO4
	Unit 5A	Demonstrate Blood sugar and urine sugar testing and monitoring	CO5
	Unit 5B	Demonstrate treatment regimens for diabetic ketoacidosis, uncontrolled diabetes mellitus and hypoglycemia	CO5
	Unit 5C	Demonstrate treatment regimens in patients with thyroid, adrenal and pituitary disorders	CO5

Mode of Examination	Practical			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	1. Nancy Caroline's Emergency Care in the Streets 2. Practical Clinical Endocrinology by Peter Igaz			
Reference Book	1. Emergency Care and Transportation of the Sick and Injured by American Academy of Orthopaedic Surgeons (AAOS) 2. Workbook for Anatomy, Physiology & Disease: Foundation for the Health Professions by Deborah Roiger and Nia Bullock 3. Patient Assessment Practice Scenarios by Les Hawthorne 4. MSD Manual: Metabolic and Endocrine Disorders. Professional version.			

POs Cos	PO1	PO2	PO3	PO4
CO1	3	2	2	1
CO2	3	2	2	1
CO3	3	3	2	1
CO4	3	3	2	1
CO5	3	3	2	1
Avg. PO attained	3.00	2.60	2.00	1.00

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 3	
1	Course Code	ETP2204	
2	Course Title	Basic Cardiac Life Support Instructor Program	
3	Credit	1	
4	Contact Hours (L-T-P)	0-0-2	
5	Course Status	Compulsory	
6	Course Objective	To train students as Instructors who would be able to conduct Basic Cardiac Life Support (BCLS) Provider Courses	
7	Course Outcome	Participants will be able to: CO1: Demonstrate the identification of trainees, select appropriate methodology and adequate knowledge content to conduct course CO2: Demonstrate ability to plan the content and programme for a BCLS course conduct a course CO3: Demonstrate ability to teaching a BCLS course with appropriate methodology CO4: Demonstrate ability to conduct the post-course procedures CO5: Maintain the training aids used for the conduct of the course.	
	Course Description	This practical course trains students who have already passed the BCLS provider course to assume the role of instructors in the BCLS program.	
9	Outline Syllabus		
	Unit 1A	Review Need for the conduct of the BCLS Course	CO1
	Unit 1 B	Identify criteria for selection of students for the BCLS provider Course and participate in selection of trainees.	CO1
	Unit 1 C	Identification of course venue and requirements, including logistics	CO1
	Unit 2A	Teaching methodology for the BCLS program Theory	CO2
	Unit 2B	Teaching Methodology for the BCLS program Practical	CO2
	Unit 2C	Preparing the BCLS Provider Course training programme	CO2
	Unit 2D	Sending out the notices and doing the preparatory work for the conduct of the BCLS provider Course	CO2
	Unit 3A	Teaching the BCLS Provider course - Mock Lecture	CO3

	Unit 3B	Teaching the BCLS Provider Course – Demonstrate CPR Procedures to a Student	CO3
	Unit 3C	Mock teaching of AED use – Demonstrate AED procedures to a student	CO3
	Unit 4A	Assessing the Students for the BCLS Provider course – Theory Testing and explanation of answers	CO4
	Unit 4B	Assessing the Students for the BCLS Provider course – Practical Testing and explanation of Errors	CO4
	Unit 4C	Conducting Refresher training and testing for the student	CO4
	Unit 5A	Post-course evaluation of course effectiveness	CO4
	Unit 5B	Demonstrate Manikin maintenance	CO5
	Unit 5C	Demonstrate ability to conduct Course debrief	CO5

Mode of Examination	Viva			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	1. BCLS + AED Instructor Training Handbook. By National Heart Centre Singapore			
Reference Book	1. Singapore Resuscitation and First Aid Council Reference Guide for Basic Cardiac Life Support with Automated External Defibrillator (BCLS+AED) Training Centre/Instructor-Training Centre (TC/ITC) 2. Basic Life Support Instructor Essentials Faculty Guide. American Heart Association. 2021. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://cpr.heart.org/-/media/CPR2-Files/Course-Materials/Instructor-Essentials/BLS/2021-BLS-Instructor-Essentials/BLS-Instructor-Essentials-Faculty-Guide_ucm_506913.pdf			

POs Cos	PO1	PO2	PO3	PO4
CO1	2	2	3	1
CO2	1	1	3	1
CO3	2	2	3	1
CO4	1	1	3	1
CO5	3	3	3	1
Avg. PO attained	1.80	1.80	3.00	1.00

SHARDA UNIVERSITY
Beyond Boundaries

ACCREDITED WITH GRADE A+ NAAC

4th Semester

Program Structure Template
School of Allied Health Sciences
Bachelor of Science (Emergency and Trauma Care Technology)

Batch: 2025-29
TERM:4

Sr. No.	Subject Code	Subject	Teaching Load			Credit	Core/Elective/ Pre Requisite/Co Requisite	Type of Course CC/AEC C/SEC/DSE
			L	T	P			
Theory								
1	ETT2221	Infectious Diseases, Dermatological diseases and Immunological Disorders	1	1	0	2	Major	CC
2	ETT2222	Paediatric Emergencies	1	2	0	3	Major	CC
3	ETT2223	Geriatric Emergencies	1	1	0	2	Major	CC
4	ETT2224	Environmental, Toxicological, and Psychological Emergencies	1	1	0	2	Major	CC
5	ETT2225	Healthcare and Ambulance services management	1	1	0	2	Major	CC
6	ETT2226	Teaching Techniques in healthcare, Research, HIS, Project Management, Digital Medicine	1	1	0	2	Major	CC
Practical								
7	ETP2221	Infectious Diseases, Dermatological diseases and Immunological Disorders	0	0	4	2	Major	CC
8	ETP2222	Paediatric and Geriatric Emergencies	0	0	4	2	Major	CC
9	ETP2223	Environmental, Toxicological Diseases, Psychological Disorders	0	0	4	2	Major	CC
10	ETP2224	Basic Trauma Life Support Instructor Training	0	0	2	1	Minor	CC
Total Hours			06	07	14	20		

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 4	
1	Course Code	ETT2221	
2	Course Title	Infectious Diseases, Dermatological diseases and Immunological Disorders	
3	Credit	2	
4	Contact Hours (L-T-P)	1-1-0	
5	Course Status	Compulsory	
6	Course Objective	1- To provide knowledge on recognition and treatment of infections 2- To provide knowledge on recognition and treatment of dermatological diseases 3- To provide knowledge to assess and treat immunological diseases. 4- To provide knowledge to ensure infection control at the workplace	
7	Course Outcome	On completion of the course students will be able to: **CO1**: Describe the infections and their modes of transmission **CO2:** Describe the aetiology, pathophysiology, assessment and treatment of infectious diseases in emergency care settings. **CO3:** Describe the aetiology, pathophysiology, assessment and initial treatment of dermatological diseases **CO4:** Describe the aetiology, pathophysiology, assessment and initial treatment of the patient with acute immunological disorders **CO5:** Describe methods to control infections at the work place	
	Course Description	This course will teach the students to identify and provide initial treatment for patients with infectious diseases, immunological disorders, and dermatological diseases.	
9	Outline Syllabus	Theory	
	Unit-1A	Infections in the community, their prevalence and classification of infectious diseases	CO1
	Unit-1B	Host defense mechanism Infection cycle Transmission of communicable diseases	CO1
	Unit-1C	Current regulations for control of infection transmission in healthcare settings. Precautions for the health care providers. Prevention mechanisms and strategies and current efforts at infection	CO1,C05

		control, especially in emergency care settings and facilities	
	Unit-2A	The pathophysiology, clinical manifestations and treatment of Airborne transmitted diseases, Sexually transmitted diseases and Blood borne diseases	CO2
	Unit-2B	The pathophysiology, clinical manifestations and treatment of Enteric diseases Vector borne diseases, and Zoonotic diseases	CO2
	Unit-2C	The prevalence of Antibiotic resistant organisms and strategies for their control. New emerging diseases	CO2
	Unit-3A	Introduction to dermatological emergencies Anatomy and physiology of skin Functions of skin	CO3
	Unit-3B	General Assessment of dermatological emergencies	CO3
	Unit-3C	General Treatment of dermatological emergencies	CO3
	Unit-4A	Infectious dermatological emergencies- Assessment and Treatment • Bacterial • Viral • Fungal Antimicrobial treatment and isolation precautions Universal precautions in clinical practice	CO3
	Unit-4B	Identification and Initial management of: • Dermatological systemic diseases • Autoimmune diseases- Lupus erythematosus, Scleroderma • Diabetes related conditions	CO3
	Unit-4C	Identification and initial care of Environmental and Occupational dermatological emergencies such as Sunburn, frostbite, marine envenomation, Contact dermatitis Identification and initial management of Dermatological emergencies in special populations- Pediatrics and geriatrics	CO3
	Unit-5A	Introduction to immunology and the role of the immune system in defense against pathogens	CO4
	Unit-5B	Pathophysiology, assessment and treatment of • Allergic reaction • Anaphylaxis • Anaphylactic shock	CO4
	Unit-5C	Pathophysiology, assessment and initial treatment of	CO4

		• Immunological disorders • Adverse effects of Immunosuppressive therapy	

Mode of Examination	Theory			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	1. Nancy Caroline's Emergency Care in the Streets 2. Dermatological Emergencies. Edited By Rajesh Verma, Biju Vasudevan 3. Immunologic Emergencies Get access Arrow. Deena Bengiamin, Jannifer Matos.https://doi.org/10.1093/med/9780190852955.003.0009 4. Olyler, K. (2024, May 22). NREMT EMT Immunological Emergencies. Study.com. https://study.com/academy/lesson/nremt-immunological-emergencies.html			
Reference Book	1. Emergency Care and Transportation of the Sick and Injured by American Academy of Orthopaedic Surgeons (AAOS) 2. Infectious Diseases Manual Hardcover – 10 November 1995. by David Wilks, David Rubenstein, Mark Farrington 3. Infectious Diseases: Smart Study Guide for Medical Students, Residents, and Clinical Providers Paperback – 1 January 2023. by Islam, Saif ul 4. Patient Assessment Practice Scenarios by Les Hawthorne			

POs Cos	PO1	PO2	PO3	PO4
CO1	2	2	2	1
CO2	3	3	2	1
CO3	3	3	2	1
CO4	3	3	2	1
CO5	2	2	2	1
Avg. PO attained	2.60	2.60	2.00	1.00

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 4	
1	Course Code	ETT2222	
2	Course Title	Paediatric Emergencies	
3	Credit	3	
4	Contact Hours (L-T-P)	1-2-0	
5	Course Status	Compulsory	
6	Course Objective	1. To provide knowledge on anatomical and physiological changes in the pediatric population 2. To provide knowledge on general assessment approach for paediatric patients 3. To provide knowledge on paediatric emergencies recognition and treatment	
7	Course Outcome	On completion of this course students will be able to: **CO1:** Describe the anatomical and physiological differences that pediatric patients have from adult patients **CO2**: Describe the assessment approach to the paediatric patient **CO3:** Describe the aetiology, pathophysiology, assessment and treatment of the general pediatric emergencies **CO4:** Describe the aetiology, pathophysiology, assessment and treatment of the special pediatric emergencies **CO5:** Describe the Assessment and treatment of intellectually and physically challenged pediatric patients	
	Course Description	This course is aimed at teaching the special characteristics of the paediatric patient, assessment of the child and identification and initial treatment of paediatric emergencies, including those that occur in physically and intellectually challenged paediatric patients.	
9	Outline Syllabus	Theory	
	Unit-1A	Introduction to paediatric emergencies The stages of development from birth to adulthood	CO1
	Unit-1B	Paediatric- Anatomy, Physiology and Pathophysiology • Head and Neck • Airway and respiratory system • Respiratory and cardiovascular system • Abdomen, Pelvis and musculoskeletal system • Chest and lungs • Integumentary system	CO1, CO3
	Unit-1C	Paediatric patient assessment	CO2

		• Scene Survey • Primary survey and critical interventions • History taking • Secondary survey Reassessment	
	Unit-2A	Identification and initial management of Respiratory emergencies in children • Respiratory Arrest, Distress and failure • Upper and lower airway disorders / emergencies	CO3
	Unit-2B	• Identification of Cardiopulmonary arrest, and other respiratory emergencies	CO3
	Unit-2C	General assessment and treatment of respiratory emergencies	CO3
	Unit-3A	Identification and initial care of Cardiovascular Emergencies • Dysrhythmia • Congenital heart diseases • Congestive heart Failure	CO3
	Unit-3B	General assessment and treatment of heart diseases in children	CO3
	Unit-3C	Recognition and management of shock in paediatric patients • Hypovolemic shock • Cardiogenic shock • Distributive shock	CO3
	Unit-4A	Evaluation and Initial management of Neurological emergencies in children, including altered mental states	CO4
	Unit-4B	Recognition and initial care of patients with seizures, meningitis,	CO4
	Unit-4C	The diagnosis and initial management of children with hydrocephalus, closed head injuries and their sequelae	CO4
	Unit-5A	The recognition and initial management of non-accidental injury in children (child abuse)	CO5
	Unit-5B	Recognition of Neglect in children and their initial management	CO5
	Unit-5C	Recognition of Violence on children including assault and the subsequent management.	CO5

Mode of Examination	Theory

Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	1. Nancy Caroline's Emergency Care in the Streets- ninth edition 2. Wyatt, Jonathan P., and others, 'Paediatric emergencies', Oxford Handbook of Emergency Medicine, 4 edn, Oxford Medical Handbooks (Oxford, 2012; online edn, Oxford Academic, 1 May 2012), https://doi.org/10.1093/med/9780199589562.003.0015, accessed 3 Sept. 2024.			
Reference Book	1. Emergency Care and Transportation of the Sick and Injured by American Academy of Orthopaedic Surgeons (AAOS) 2. Workbook for Anatomy, Physiology & Disease: Foundation for the Health Professions by Deborah Roiger and Nia Bullock 3. Patient Assessment Practice Scenarios by Les Hawthorne 4. Paediatric Case Studies for the Paramedic by Stephen J Rahm. 5. Pediatric Prehospital Care by David S. Markenson Textbook of Paediatric Emergency Medicine 3rd edition. Editors: Cameron P, Browne G, Biswadev M, Dalziel S, Craig S			

POs Cos	PO1	PO2	PO3	PO4
CO1	2	2	2	1
CO2	3	2	2	1
CO3	3	3	2	1
CO4	3	3	2	1
CO5	3	3	2	1
Avg. PO attained	2.80	2.60	2.00	1.00

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 4	
1	Course Code	ETT2223	
2	Course Title	Geriatrics Emergencies	
3	Credit	2	
4	Contact Hours (L-T-P)	1-1-0	
5	Course Status	Compulsory	
6	Course Objective	1. To provide knowledge on anatomical and physiological changes and differences in the geriatric patients from regular younger adult patients 2. To provide knowledge on geriatric patient assessment and treatment of emergencies 3. To provide knowledge on recognition and treatment of geriatric patient's with special challenges	
7	Course Outcome	On completion of this course students will be able to: **CO1:** Describe the anatomical and physiological changes and differences in geriatric patients vs younger adults **CO2**: Describe the assessment approach to the geriatric patient **CO3:** Describe the aetiology, pathophysiology, assessment and treatment of general emergencies in geriatric patients **CO4:** Describe the aetiology, pathophysiology, recognition and treatment of geriatric patients with special challenges **CO5:** Describe the benefits of home care to geriatric patients	
	Course Description	This course is designed to cover the anatomical and physiological changes/differences in geriatric populations, geriatric emergencies and geriatric patients with special challenges including home care.	
9	Outline Syllabus	Theory	
	Unit-1A	Introduction to geriatric emergencies	CO1
	Unit-1B	Geriatrics: Anatomical and physiological changes in the elderly	CO1
	Unit-1C	Responses to disease and injury in geriatric patients	CO1
	Unit-2A	Assessment of geriatric patients	CO2
	Unit-2B	Assessment and Treatment of general medical complaints in geriatric patient	CO2,CO3
	Unit-2C	Presentation and initial management of Trauma in the elderly	CO2, CO3
	Unit-3A	Provision of End of life care to those in need	CO4
	Unit-3B	Palliative care for elderly patients	CO4

	Unit-3C	Identification and managed of Neglect in the elderly	CO4
	Unit-4A	Managing the elderly patient who is a victim of Assault, including elderly abuse and neglect	CO4
	Unit-4B	Management of Patients with Special Needs: • Physical challenges • Mental challenges • Pathological changes And Terminally ill patients	CO4
	Unit-4C	Assessment and management of Patients with communicable diseases	CO4
	Unit-5A	Opportunities for home care in geriatric patients	CO5
	Unit-5B	Assessment and initial management of elderly patients in emergency department	CO3, CO5
	Unit-5C	Emergency observation care for the elderly patient	CO3,C05

Mode of Examination	Theory			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	1. Nancy Caroline's Emergency Care in the Streets- ninth edition 2. Emergency Care and Transportation of the Sick and Injured by American Academy of Orthopaedic Surgeons (AAOS) 3. Creating a Geriatric Emergency Department by John Schumacher, Don Melady 4. Geriatric Emergency Medicine, An Issue of Clinics in Geriatric Medicine by Christopher R. Carpenter			
Reference Book	Geriatric Emergencies A Case-Based Approach to Improving Acute Care. Lee A. Lindquist, Scott M. Dresden			

POs Cos	PO1	PO2	PO3	PO4
CO1	2	2	1	1
CO2	3	2	2	1
CO3	3	3	2	1
CO4	3	3	2	1
CO5	2	2	2	1
Avg. PO attained	2.60	2.40	1.80	1.00

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 4	
1	Course Code	ETT2224	
2	Course Title	Environmental, Toxicological, and Psychological Emergencies	
3	Credit	2	
4	Contact Hours (L-T-P)	1-1-0	
5	Course Status	Compulsory	
6	Course Objective	1- To provide knowledge on recognition and treatment of environmental emergencies 2- To provide knowledge on recognition and treatment of toxicological emergencies 3- To provide knowledge to assess and recognize psychiatric emergencies and initiate care.	
7	Course Outcome	At the end of the course students will be able to: **CO1:** Describe the common varieties of environmental emergencies **CO2:** Describe the aetiology, pathophysiology, assessment and treatment of thermal (heat and cold), drowning and other water-based emergencies. **CO3:** Describe the aetiology, pathophysiology, assessment and treatment of high altitude sicknesses, and travel-related diseases **CO4:** Describe the types, aetiology, pathophysiology, assessment and treatment of poisoned patients **CO5:** Describe common psychiatric emergencies, and their recognition and initial care.	
	Course Description	This course is designed to cover environmental, toxicological and psychiatric emergencies for their aetiology, pathology, pathophysiology, assessment and treatment. Students will be able to recognize and explain the treatments of these emergencies.	
9	Outline Syllabus	Theory	
	Unit-1A	Environmental emergencies- Introduction	CO1
	Unit-1B	Heat illnesses and injuries	CO2
	Unit-1C	Cold injuries	CO2
	Unit-2A	Drowning	CO2
	Unit-2B	Diving injuries	CO2
	Unit-2C	Altitude illness Travel medicine	CO3
	Unit-3A	Poisoning management systems	CO4
	Unit-3B	Types of toxicological emergencies	CO4
	Unit-3C	Poison centres	CO4

		Routes of absorption	
	Unit-4A	Toxidromes Substance abuse Alcoholism	CO4
	Unit-4B	Assessment and management of specific poisoning	CO4
	Unit-4C	Bites Stings Injected poisons	CO4
	Unit-5A	Recognition, assessment of Psychiatric emergencies – • Neuroses • Psychosis • Delirium and dementia	CO5
	Unit-5B	Management of Psychiatric illnesses	CO5
	Unit-5C	Approach to the Hostile and violent patient	CO5

Mode of Examination	Theory			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	1. Environmental Emergencies. https://www.moh.gov.bt/wp-content/uploads/moh-files/2017/10/Chapter-10-Environmental-Emergencies.pdf 2. Toxicology Nurse: Critical Care Nursing in Toxicological Emergencies by Vivekanshu Verma, Sandhy Medanta 3. Ramrakha, Punit S., Kevin P. Moore, and Amir H. Sam, 'Psychiatric emergencies', Oxford Handbook of Acute Medicine, 4 edn, Oxford Medical Handbooks (Oxford, 2019; online edn, Oxford Academic, 1 Jan. 2019), https://doi.org/10.1093/med/9780198797425.003.0013 , accessed 3 Sept. 2024			

Reference Book	**1.** Goldfrank's Toxicologic Emergencies, 11th edition. Lewis S. Nelson, Mary Ann Howland, Neal A. Lewin, Silas W. Smith, Lewis R. Goldfrank, Robert S. Hoffman **2.** Sudarsanan S, Chaudhury S, Pawar AA, Salujha SK, Srivastava K. Psychiatric Emergencies. Med J Armed Forces India. 2004 Jan;60(1):59-62. doi: 10.1016/S0377-1237(04)80162-X. Epub 2011 Jul 21. PMID: 27407580; PMCID: PMC4923517 3. Adeniyi OV, Puzi N. Management approach of patients with violent and aggressive behaviour in a district hospital setting in South Africa. S Afr Fam Pract (2004). 2021 Oct 27;63(1):e1-e7. doi: 10.4102/safp.v63i1.5393. PMID: 34797099; PMCID: PMC8603198. 4. Harwood RH. Symposium Report. How to deal with violent and aggressive patients in acute medical settings J R Coll Physicians Edinb 2017; 47: 176–82. doi: 10.4997/JrCPe.2017.218 5. Gordian Fulde, Paul Preisz. Managing aggressive and violent patients. Australian Prescriber. 2011; 34(4): 115-118Paola Rocca, Vincenzo Villari, Filippo Bogetto. Managing the aggressive and violent patient in the psychiatric emergency. Progress in Neuro-Psychopharmacology and Biological Psychiatry. 2006; Volume 30, Issue 4: 586-598,. SSN 0278-5846. https://doi.org/10.1016/j.pnpbp.2006.01.015 6. 7. Victoria A. Coburn, MD, Mark B. Mycyk. Physical and Chemical Restraints. Emerg Med Clin N Am. 2009; 27: 655–667 doi:10.1016/j.emc.2009.07.003 The Mental Health care Act, India, 2017.

POs Cos	PO1	PO2	PO3	PO4
CO1	1	1	1	1
CO2	3	3	2	1
CO3	3	3	2	1
CO4	3	3	2	1
CO5	3	3	2	1
Avg. PO attained	2.60	2.60	1.80	1.00

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 4	
1	Course Code	ETT2225	
2	Course Title	Healthcare and Ambulance Services Management	
3	Credit	2	
4	Contact Hours (L-T-P)	1-1-0	
5	Course Status	Compulsory	
6	Course Objective	1. To provide knowledge about hospitals and its units 2. To provide knowledge about legal statutes and regulations governing the operations of medical clinics in India and to create an understanding of the emergency medical services regulations and statutes in India 3. To provide knowledge on organization, management and operations of hospitals and Emergency Departments	
7	Course Outcome	At the end of course students will be able to: CO1: Describe the organization of a hospital and its facilities CO2: Describe the contents of the Clinical Establishments (Registration and Regulation) Act and the laws related to Ambulances in India CO3: Describe the principal hospital procedures and system of management CO4: Describe the organization of Emergency Departments in India CO5: Describe the human resource management, financial management and information technology in hospital	
	Course Description	This course describes the organization and management of hospitals, Emergency Departments in India and explains the contents of the laws related to Ambulances in India`	
9	Outline Syllabus	Theory	
	Unit-1A	**1.** Classification of Hospitals in India **2.** Public and Private Hospitals **3.** Organization of a Hospital **4.** Facilities in a Hospital **5.** Healthcare workers and their rights and responsibilities	CO1
	Unit-1B	**1.** Clinical and non-clinical departments **2.** Departmental organization **3.** Healthcare Manpower **4.** Ancillary departments	CO1

		5. Lab **6.** Pharmacy **7.** Imaging **8.** Physio/Speech 9. Patient flow in a hospital	
	Unit-1C	1. Patient support Services- Admission, Medical insurance, Dietary 2. Social Services 3. Health information Management 4. Medical record 5. Electronic medical record 6. Blood bank 7. Hospital safety	CO1
	Unit-2A	**1.** National Medical Commission Act, 2019 (and amendments): **2.** Clinical Establishments (Registration and Regulation) Act, 2010: **3.** Drugs and Cosmetics Act, 1940: **4.** Pharmacy Act, 1948: **5.** Consumer Protection Act, 1986 (and the Consumer Protection Act, 2019): **6.** Medical Termination of Pregnancy Act, 1971 (and amendments): **7.** Transplantation of Human Organs and Tissues Act (THOTA), 1994 (and amendments): **8.** Mental Healthcare Act, 2017: **9.** The Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995: **10.** Information Technology Act, 2000 **11.** Biomedical Waste Management Rules, 2016: **12.** The Employees' State Insurance Act, 1948: **13.** The Maternity Benefit Act, 1961 (and amendments) **14.** National Accreditation Board for Hospitals & Healthcare Providers (NABH) Standards:	CO2
	Unit-2B	• Organisation of Ambulances and Ambulance Services in India • Organisation of Ambulances and Ambulance Services around the world	CO2
	Unit-2C	The Laws related to Ambulances in India	CO2
	Unit-3A	Operating hospitals and Medical Clinics In India	CO3
	Unit-3B	Emergency departments and Emergency Medicine in India	CO3

	Unit-3C	Patient flow and Operations of an emergency department	CO3
	Unit-4A	Management of hospital- Introduction, importance, roles and responsibilities of hospital manager	CO4
	Unit-4B	Hospital operations management	CO4
	Unit-4C	Healthcare Quality and patient safety	CO5
	Unit-5A	Human resource Management	CO5
	Unit-5B	Legal and ethical aspects of healthcare management	CO5
	Unit-5C	Information technologies in healthcare management	CO5
	Unit 5D	Financial Management of Hospitals	CO5

Mode of Examination	Theory			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	1- Nancy Caroline's Emergency Care in the Streets 2- Hospital and Healthcare Management" by K.V. Ramani, Dileep Mavalankar, and Dipti Govil			
Reference Book	1. The Clinical establishments (Registration and Regulation) Act, 2010. Chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.indiacode.nic.in/bitstream/123456789/7798/1/201023_clinical_establishments_%28registration_and_regulation%29_act%2C_2010.pdf 2. Laws related to Ambulances in India By Sukriti VermaPublished on 28 Nov 2022 7:57 PM.https://www.legalbites.in/topics/articles/laws-related-to-ambulances-in-india-358420			

POs Cos	PO1	PO2	PO3	PO4
CO1	1	1	1	1
CO2	1	1	1	1
CO3	1	1	1	1
CO4	2	2	1	1
CO5	1	1	1	1
Avg. PO attained	1.20	1.20	1.00	1.00

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 4	
1	Course Code	ETT2226	
2	Course Title	Teaching Techniques in healthcare, Research, HIS, Project Management, Digital Medicine	
3	Credit	02	
4	Contact Hours (L-T-P)	1-1-0	
5	Course Status	Compulsory	
6	Course Objective	**1.** To introduce students to the basic Teaching techniques in healthcare **2.** To provide knowledge on project management and communication in the healthcare setting **3.** To provide knowledge on Scientific paper writing, data collection and management. **4.** To provide knowledge on digital medicine 5. To outline the principles and practice of patient transfers	
7	Course Outcome	At the end of course students will be able to: CO1: Describe teaching techniques and technology used in teaching. CO2: Describe project management principles in healthcare settings CO3: Able to draft scientific paper and to organize data for management decision making, emergency department information system CO4: Understand hospital information systems CO5: Understand the principles and concerns when organizing patient transfers and digital medicine	
	Course Description	This course covers the principles of teaching methodology, project management in healthcare and scientific paper writing. It also provides an overview of hospital information systems and principles of digital medicine. Finally the course discusses the standards and pitfalls of patient transfers.	
9	Outline Syllabus	Theory	
	Unit-1A	Basic principles of Teaching Techniques in healthcare	CO1
	Unit-1B	Technologies used in teaching	CO1
	Unit-1C	Types of Teaching techniques in healthcare	CO1
	Unit-2A	Project Management- Introduction, definition and importance of project management	CO2
	Unit-2B	Project initiation- Charter and identification of project need, project planning and execution	CO2
	Unit-2C	Monitoring and control of healthcare projects	CO2
	Unit-2D	Closing of project	CO2

	Unit-3A	Writing a Scientific paper	CO3
	Unit-3B	Drafting introduction and objectives	CO3
	Unit-3C	Data and data management	CO3
	Unit-3D	Discussing the results and conclusion	CO3
	Unit-4A	Hospital information systems	CO4
	Unit-4B	Emergency department information systems	CO4
	Unit-4C	Emergency ambulance information systems	CO4
	Unit-5A	Digital medicine	CO5
	Unit-5B	Patient outcomes in emergency department	CO5
	Unit-5C	Patient transfers to other facilities	CO5

Mode of Examination	Theory			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	1- Hoogenboom BJ, Manske RC. How to write a scientific article. Int J Sports Phys Ther. 2012 Oct;7(5):512-7. PMID: 23091783; PMCID: PMC3474301. 2- Turbek, S.P., Chock, T.M., Donahue, K., Havrilla, C.A., Oliverio, A.M., Polutchko, S.K., Shoemaker, L.G. and Vimercati, L. (2016), Scientific Writing Made Easy: A Step-by-Step Guide to Undergraduate Writing in the Biological Sciences. Bull Ecol Soc Am, 97: 417-426. https://doi.org/10.1002/bes2.1258 3- Practical Statistics for Medical Research by Douglas G. Altman 4- Digital Guardian. Data Protection 101. What is a Health Information System? by Chris Brook on Thursday August 22, 2024. https://www.digitalguardian.com/blog/what-health-information-system 5- Winter A, Ammenwerth E, Haux R, et al. Health Information Systems: Technological and Management Perspectives [Internet]. 3rd edition. Cham (CH): Springer; 2023. Chapter 2, Basic Concepts and Terms. 2023 Mar 22. Available from: https://www.ncbi.nlm.nih.gov/books/NBK602592/ doi: 10.1007/978-3-031-12310-8_2 6- The Principles of Project Management. Project Management Explained. https://business-explained.com/shop/project-management-explained/?wickedsource=google&wickedid=CjwKCAjw59q2BhBOEiwAKc0ijedeU2QjsXbR2s2YKWegHWKiRlCFnTfsRH7OzRZCgNdJBoRyq-iBxhoC7o0QAvD_BwE&wickedid=&wcid=21122309170&wv=4&gad_source=1&gclid=CjwKCAjw59q2BhBOEiwAKc0ijedeU2QjsXbR2s2YKWegHWKiRlCFnTfsRH7OzRZCgNdJBoRyq-iBxhoC7o0QAvD_BwE 7- Coravos A, Goldsack JC, Karlin DR, Nebeker C, Perakslis E, Zimmerman N, Erb MK. Digital Medicine: A Primer on			

	Measurement. Digit Biomark. 2019 May 9;3(2):31-71. doi: 10.1159/000500413. PMID: 32095767; PMCID: PMC7015383. 8- Kulshrestha A, Singh J. Inter-hospital and intra-hospital patient transfer: Recent concepts. Indian J Anaesth. 2016 Jul;60(7):451-7. doi: 10.4103/0019-5049.186012. PMID: 27512159; PMCID: PMC4966347.
Reference Book	1. Burgess, A., van Diggele, C., Roberts, C. et al. Key tips for teaching in the clinical setting. BMC Med Educ 20 (Suppl 2), 463 (2020). https://doi.org/10.1186/s12909-020-02283-2 2. Challa KT, Sayed A and Acharya Y. Modern techniques of teaching and learning in medical education: a descriptive literature review [version 1]. MedEdPublish 2021, 10:18 (https://doi.org/10.15694/mep.2021.000018.1) 3. Pandit AS (2022) Contemporary learning techniques for healthcare professionals: A narrative review. Front. Educ. 7:939809. doi: 10.3389/feduc.2022.939809 4. Clinical Procedures for Safer Patient Care. Chapter 3. Safe Patient Handling, Positioning, and Transfers. https://opentextbc.ca/clinicalskills/chapter/3-7-transfers-and-ambulation/

POs Cos	PO1	PO2	PO3	PO4
CO1	1	1	3	1
CO2	1	1	1	3
CO3	1	1	1	3
CO4	1	2	1	1
CO5	2	2	1	1
Avg. PO attained	1.20	1.40	1.40	1.80

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 4	
1	Course Code	ETP2221	
2	Course Title	Infectious Diseases, Dermatological diseases and Immunological Disorders	
3	Credit	2	
4	Contact Hours (L-T-P)	0-0-4	
5	Course Status	Compulsory	
6	Course Objective	1- To practice the infection control procedure in the hospital environment. 2- To practice recognition and treatment of infectious emergencies 3- To practice recognition and treatment of immunological disorders 4- To practice recognition and treatment of dermatological disorders	
7	Course Outcome	Students will be able to: **CO1:** Demonstrate infection precautions in both pre-hospital and in-hospital environments CO2: Demonstrate the use of infection control practices in healthcare settings CO3: Demonstrate Assessment and treatment of infectious patients in both simulated and clinical environments CO4: Demonstrate the Assessment and treatment of patients presenting with immunological emergencies CO5: Demonstrate the Assessment and treatment of patients with dermatological emergencies.	
	Course Description	This practical course provides opportunities for the student to practice the various skills in assessment and organizing treatment of patients with infectious diseases, dermatological diseases and immunological emergencies	
9	Outline Syllabus	**Practical**	
	Unit 1A	Infection precautions in both pre-hospital and in-hospital environments-1	CO1
	Unit 1B	Infection precautions in both pre-hospital and in-hospital environments-2	CO1
	Unit 1C	Infection precautions in both pre-hospital and in-hospital environments-3	CO1

	Unit 2A	Infection control practices and Safe practices in healthcare settings-1	CO2
	Unit 2B	Infection control practices and Safe practices in healthcare settings-2	CO2
	Unit 2C	Infection control practices and Safe practices in healthcare settings-3	CO2
	Unit 3A	Assessment and treatment of the patients with Infectious diseases-1	CO3
	Unit 3B	Assessment and treatment of the patients with Infectious diseases-2	CO3
	Unit 3C	Assessment and treatment of the patients with Infectious diseases-3	CO3
	Unit 4A	Assessment and treatment of patients with Immunological emergencies—Allergies and anaphylaxis-1	CO4
	Unit 4B	Assessment and treatment of patients with Immunological emergencies—Allergies and anaphylaxis-2	CO4
	Unit 4C	Assessment and treatment of patients with Immunological emergencies—Allergies and anaphylaxis-3	CO4
	Unit 5A	Assessment and treatment of patients with dermatological emergencies-1	CO5
	Unit 5B	Assessment and treatment of patients with dermatological emergencies-2	CO5
	Unit 5C	Assessment and treatment of patients with dermatological emergencies-3	CO5

Mode of Examination	Practical			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	**1.** Nancy Caroline's Emergency Care in the Streets **2.** International Wound Infection Institute. Wound Infection in Clinical Practice: Principles of best practice. Third Edition.2022 **3.** Habboush Y, Yarrarapu SNS, Guzman N. Infection Control. [Updated 2023 Sep 4]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK519017/ **4.** Infection Prevention and Control. A Social Science Perspective. Edited By Paul Elliott, Julie Storr, Annette Jeanes **5.** George Coltart, Adam Fityan. Acute dermatological emergencies. Medicine. Volume 49, Issue 3. 2021. Pages 173-178. ISSN 1357-3039. https://doi.org/10.1016/j.mpmed.2020.12.011. **6.** Davey, Patrick, David Sprigings, and Siraj Misbah, 'Clinical features and diagnosis of immunological disease', in Patrick Davey, and			

	David Sprigings (eds), Diagnosis and Treatment in Internal Medicine (Oxford, 2018; online edn, Oxford Academic, 1 Aug. 2018). https://doi.org/10.1093/med/9780199568741.003.0294 , accessed 3 Sept. 2024 **7.** Janeway CA Jr, Travers P, Walport M, et al. Immunobiology: The Immune System in Health and Disease. 5th edition. New York: Garland Science; 2001. Chapter 1, Basic Concepts in Immunology. Available from: https://www.ncbi.nlm.nih.gov/books/NBK10779/ **8.** Basic Immunology Functions and Disorders of the Immune System. Abul K. Abbas, Andrew H. Lichtman, Shiv Pillai
Reference Book	**1.** Emergency Care and Transportation of the Sick and Injured by American Academy of Orthopaedic Surgeons (AAOS) **2.** Dermatologic Emergencies RICHARD P. USATINE, and NATASHA SANDY, chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.bumc.bu.edu/emergencymedicine/files/2016/07/Derm-Emergencies.pdf **3.** Immunosuppressive Medication for the Treatment of Autoimmune Disease. American Academy of Allergy, Asthma & Immunology. https://www.aaaai.org/conditions-treatments/related-conditions/immunosuppressive

POs Cos	PO1	PO2	PO3	PO4
CO1	1	1	2	1
CO2	3	3	2	1
CO3	3	3	2	1
CO4	3	3	2	1
CO5	3	3	2	1
Avg. PO attained	2.60	2.60	2.00	1.00

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 4	
1	Course Code	ETP2222	
2	Course Title	Paediatric and Geriatric Emergencies	
3	Credit	2	
4	Contact Hours (L-T-P)	0-0-4	
5	Course Status	Compulsory	
6	Course Objective	1. To practice recognition and treatment of patients with paediatric emergencies 2. To practice recognition and treatment of patients with geriatric emergencies 3. To practice recognition and treatment of paediatric and geriatric patients with special challenges including home care and end life care to the geriatrics	
7	Course Outcome	Students will be able to: CO1: Demonstrate the identification of anatomical and physiological changes/differences in paediatric and geriatric patients CO2: Demonstrate the step-by-step assessment of the paediatric patient CO3: Demonstrate the recognitions and treatment of patients with common paediatric emergencies CO4: Demonstrate the recognition and treatment of patients with common geriatric emergencies CO5: Demonstrate the recognition and treatment of the paediatrics and geriatrics with special challenges including home care and end life care	
	Course Description	This practical course will cover the demonstration and identification of anatomical and physiological changes and assessment & treatment of patients with paediatric and geriatric emergencies including special need and home care to the patients.	
9	Outline Syllabus	**Practical**	
	Unit 1A	Identification of anatomical, physiological and pathological changes in the paediatric and geriatric age groups-1	CO1
	Unit 1B	Identification of anatomical, physiological and pathological changes in the paediatric and geriatric age groups-2	CO1
	Unit 1C	Identification of anatomical, physiological and pathological changes in the paediatric and geriatric age groups-3	CO1

	Unit 2A	Patient assessment in paediatric patient with Respiratory Arrest, Distress and failure Upper and lower airway disorders / emergencies	CO2
	Unit 2B	Patient assessment in paediatric patient with Cardiopulmonary arrest respiratory emergencies	CO2
	Unit 2C	Patient assessment in paediatric patient with Dysrhythmia Congenital heart diseases Congestive heart Failure	CO2
	Unit 3A	Assessment and treatment of paediatric patients with Hypovolemic shock Cardiogenic shock Distributive shock	CO3
	Unit 3B	Assessment and treatment of paediatric patients with Seizures Meningitis Neurological disorders	CO3
	Unit 3C	Assessment and treatment of paediatric patients with Hydrocephalus head injuries assault and neglect	CO3
	Unit 4A	Assessment and treatment of medical and trauma complaints in geriatric patients-1	CO4
	Unit 4B	Assessment and treatment of medical and trauma complaints in geriatric patients-2	CO4
	Unit 4C	Assessment and treatment of medical and trauma complaints in geriatric patients-3	CO4
	Unit 5A	Assessment and treatment of special needs paediatric and geriatric patients, home care, end-of-life care-1	CO5
	Unit 5B	Assessment and treatment of special needs paediatric and geriatric patients, home care, end-of-life care-2	CO5
	Unit 5C	Assessment and treatment of special needs paediatric and geriatric patients, home care, end-of-life care-3	CO5

Mode of Examination	Practical			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	1. Nancy Caroline's Emergency Care in the Streets 2. Wyatt, Jonathan P., and others, 'Paediatric emergencies', Oxford Handbook of Emergency Medicine, 4 edn, Oxford Medical Handbooks (Oxford, 2012; online edn, Oxford Academic, 1 May 2012), https://doi.org/10.1093/med/9780199589562.003.0015, accessed 3 Sept. 2024. 3. Creating a Geriatric Emergency Department by John Schumacher, Don Melady			
Reference Book	1. Emergency Care and Transportation of the Sick and Injured by American Academy of Orthopaedic Surgeons (AAOS) 2. Workbook for Anatomy, Physiology & Disease: Foundation for the Health Professions by Deborah Roiger and Nia Bullock 3. Patient Assessment Practice Scenarios by Les Hawthorne 4. Paediatric Case Studies for the Paramedic by Stephen J Rahm. 5. Pediatric Prehospital Care by David S. Markenson 6. Textbook of Paediatric Emergency Medicine 3rd edition. Editors: Cameron P, Browne G, Biswadev M, Dalziel S, Craig S 7. Geriatric Emergencies A Case-Based Approach to Improving Acute Care. Lee A. Lindquist, Scott M. Dresden			

POs Cos	PO1	PO2	PO3	PO4
CO1	2	1	2	1
CO2	3	2	2	1
CO3	3	3	2	1
CO4	3	3	2	1
CO5	3	3	2	1
Avg. PO attained	2.80	2.40	2.00	1.00

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester:	
1	Course Code	ETP2223	
2	Course Title	Environmental, Toxicological Diseases, Psychological Disorders	
3	Credit	2	
4	Contact Hours (L-T-P)	0-0-4	
5	Course Status	Compulsory	
6	Course Objective	1. To practice recognition of environmental, toxicological and psychological emergencies 2. To practice treatment of environmental, toxicological and psychological emergencies	
7	Course Outcome	At the end of course students will be able to: CO1: Demonstrate the assessment of environmental emergencies including heat, cold diving drowning and high altitude sicknesses CO2: Demonstrate the treatment of environmental emergencies including heat, cold diving drowning and high altitude sicknesses CO3: Demonstrate the recognition and treatment of poisoning including sting and bite CO4: Demonstrate the assessment and treatment of psychological emergencies CO5: Demonstrate the use of restraint techniques	
	Course Description	This practical course enables students to conduct the assessment and treatment of environmental, toxicology and psychiatric emergencies.	
9	Outline Syllabus	**Practical**	
	Unit 1A	Assessment and treatment of heat, cold, drowning, diving and high altitude sickness emergencies-1	CO1,CO2
	Unit 1B	Assessment and treatment of heat, cold, drowning, diving and high altitude sickness emergencies-2	CO1,CO2
	Unit 1C	Assessment and treatment of heat, cold, drowning, diving and high altitude sickness emergencies-3	CO1,CO2
	Unit 2A	Assessment and treatment of different types of poisoning including specific poisoning- Bite stings and injected poisoning-1	CO3
	Unit 2B	Assessment and treatment of different types of poisoning including specific poisoning- Bite stings and injected poisoning-2	CO3

	Unit 2C	Assessment and treatment of different types of poisoning including specific poisoning- Bite stings and injected poisoning-3	CO3
	Unit 3A	Assessment and treatment of the Psychiatric disorders and emergencies-1	CO4
	Unit 3B	Assessment and treatment of the Psychiatric disorders and emergencies-2	CO3
	Unit 3C	Assessment and treatment of the Psychiatric disorders and emergencies-3	CO3
	Unit 4A	Assessment and treatment of hostile and violent patients-1	CO4
	Unit 4B	Assessment and treatment of hostile and violent patients-2	CO4
	Unit 4C	Assessment and treatment of hostile and violent patients-3	CO4
	Unit 5A	Restraint techniques-1	CO5
	Unit 5B	Restraint techniques-2	CO5
	Unit 5C	Restraint techniques-3	CO5

Mode of Examination	Practical			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	1. Environmental Emergencies. https://www.moh.gov.bt/wp-content/uploads/moh-files/2017/10/Chapter-10-Environmental-Emergencies.pdf 2. Toxicology Nurse: Critical Care Nursing in Toxicological Emergencies by Vivekanshu Verma, Sandhy Medanta 3. Ramrakha, Punit S., Kevin P. Moore, and Amir H. Sam, 'Psychiatric emergencies', Oxford Handbook of Acute Medicine, 4 edn, Oxford Medical Handbooks (Oxford, 2019; online edn, Oxford Academic, 1 Jan. 2019), https://doi.org/10.1093/med/9780198797425.003.0013 , accessed 3 Sept. 2024			
Reference Book	1. Goldfrank's Toxicologic Emergencies, 11th edition. Lewis S. Nelson, Mary Ann Howland, Neal A. Lewin, Silas W. Smith, Lewis R. Goldfrank, Robert S. Hoffman 2. Sudarsanan S, Chaudhury S, Pawar AA, Salujha SK, Srivastava K. Psychiatric Emergencies. Med J Armed Forces India. 2004 Jan;60(1):59-62. doi: 10.1016/S0377-1237(04)80162-X. Epub 2011 Jul 21. PMID: 27407580; PMCID: PMC4923517.			

	3. Registered Nurses Association of Ontario, Canada. Promoting safety: Alternative Approaches to the Use of Restraints. 2012. Toronto 4. College of Nurses of Ontario. Understanding Restraints.

POs Cos	PO1	PO2	PO3	PO4
CO1	3	2	2	1
CO2	2	3	2	1
CO3	3	3	2	1
CO4	3	3	2	1
CO5	3	3	2	1
Avg. PO attained	2.80	2.80	200	1.00

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 4	
1	Course Code	ETP2224	
2	Course Title	Basic Trauma Life Support Instructor Training	
3	Credit	1	
4	Contact Hours (L-T-P)	0-0-2	
5	Course Status	Compulsory	
6	Course Objective	To equip students with the skills in conducting the basic trauma life support provider course to health care providers.	
7	Course Outcome	At the end of course students will be able to : CO1: Demonstrate principles of teaching trauma skills CO2: Maintain the trauma training aids CO3: Teach basic trauma course CO4: Practice students trauma skills CO5: Assess the trauma skill stations	
	Course Description	This course will equip students with the teaching techniques for teaching the BTLS Provider program	
9	Outline Syllabus	**Practical**	
	Unit 1A	Principles of teaching trauma skills-1	CO1
	Unit 1B	Principles of teaching trauma skills-2	CO1
	Unit 1C	Principles of teaching trauma skills-3	CO1
	Unit 2A	Use and maintenance of trauma training aids-1	CO2
	Unit 2B	Use and maintenance of trauma training aids-2	CO2
	Unit 2C	Use and maintenance of trauma training aids-3	CO2
	Unit 3A	Practice conduct of lectures in trauma life support-1	CO3
	Unit 3B	Practice conduct of lectures in trauma life support-2	CO3
	Unit 3C	Practice conduct of lectures in trauma life support-3	CO3
	Unit 4A	Practise conduct of practical trauma life support stations-1	CO4
	Unit 4B	Practise conduct of practical trauma life support stations-2	CO4
	Unit 4C	Practise conduct of practical trauma life support stations-3	CO4
	Unit 5A	Practice assessment of test stations-1	CO5
	Unit 5B	Practice assessment of test stations-2	CO5
	Unit 5C	Practice assessment of test stations-3	CO5

Mode of Examination	Practical			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	1. International Trauma Life Support for Emergency Care Providers. Roy Alson, John Campbell. 9th Edition. 2. What are the benefits of instructor-led training for training providers and learners? https://www.arlo.co/blog/benefits-of-instructor-led-training			
Reference Book	1. International Trauma Life Support for Emergency Care Providers. Roy Alson, John Campbell. 9th Edition. 2. What are the benefits of instructor-led training for training providers and learners? https://www.arlo.co/blog/benefits-of-instructor-led-training			

POs Cos	PO1	PO2	PO3	PO4
CO1	2	2	3	1
CO2	1	1	3	1
CO3	2	2	3	1
CO4	2	2	3	1
CO5	1	1	3	1
Avg. PO attained	1.60	1.60	3.00	1.00

5th Semester

Program Structure Template
School of Allied Health Sciences
Bachelor of Science (Emergency and Trauma Care Technology)

Batch: 2025-29
TERM:5

Sr. No.	Subject Code	Subject	Teaching Load			Credit	Core/Elective/ Pre Requisite/Co Requisite	Type of Course CC/AEC C/SEC/DSE
			L	T	P			
Theory Modules								
1	ETT3301	The World Health Organization's Emergency Care Framework	01	01	00	02	Major	CC
2	ETT3302	Quality of Care in Hospitals, Community, and Ambulances and Clinical Care Protocols	01	01	00	02	Major	CC
Practical Modules								
3	ETP3301	Clinical Care In Ambulance-2	00	00	08	04	Major	CC
4	ETP3302	Clinical Care in Emergency Departments-1	00	00	08	04	Major	CC
5	ETP3303	Clinical Care in Community Health Centres-2	00	00	08	04	Major	CC
6	ETP3304	Clinical Care in ICUs	00	00	06	03	Major	CC
7	ETP3305	Disaster Management Exercise-2	00	00	02	01	Minor	CC
Total Hours			02	02	32	20		

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 5	
1	Course Code	ETT3301	
2	Course Title	The World Health Organization's Emergency Care Framework	
3	Credit	2	
4	Contact Hours (L-T-P)	1-1-0	
5	Course Status	Compulsory	
6	Course Objective	1. To create a clear understanding about emergency response and the WHO's emergency care framework 2. To understand the various facets of fragmentation and integration in emergency care in the community 3. To understand the need for and the challenges in organizing emergency healthcare programs in the community	
7	Course Outcome	On completion of course students will be able to CO1: Describe the components of the WHO framework on emergency care CO2: Describe the principles of emergency response in the various phases of the provision of care across the healthcare spectrum CO3: Understand the challenges faced in integrating provision of healthcare CO4: Discuss potential solutions to achieve integration of emergency care in the community CO5: Describe systems of organizing emergency healthcare programs that can benefit the community.	
	Course Description	This course describes the challenges that occur in provision of healthcare across the community, the WHO's standards in emergency care and how to translate these into emergency care programs for the community.	
9	Outline Syllabus	Theory	
	Unit-1A	The World Health organization's Emergency care framework, its components, guiding principles	CO1
	Unit-1B	No regret policy of WHO on emergency care framework	CO1
	Unit- 1C	Applications of the WHO emergency care framework in different communities	CO2
	Unit-2A	Principles of emergency response in the community	CO2
	Unit-2B	Type of emergencies in the community and their appropriate response	CO2

	Unit-2C	Resources used for emergencies in community	CO2
	Unit- 3A	Fragmentation of emergency care across communities and its consequences	CO3
	Unit- 3B	Consequences of emergency care fragmentation in the community	CO3
	Unit- 3C	The approach to integration of emergency care in the community	CO3
	Unit-4A	Potential solutions to fragmentation in pre-hospital emergency care	CO4
	Unit- 4B	Potential solutions to fragmentation in Emergency Department care	CO4
	Unit- 4C	Potential solutions to fragmentation in post ED care	CO4
	Unit -5A	Organizing emergency healthcare programs in community- Requirements	CO5
	Unit -5B	Organizing emergency healthcare programs in community- Legal adherence and intimations	CO5
	Unit -5C	Organizing emergency healthcare programs in community- Organize program	CO5

Mode of Examination	Theory			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	1. Reynolds TA, Sawe H, Rubiano AM, et al. Strengthening Health Systems to Provide Emergency Care. In: Jamison DT, Gelband H, Horton S, et al., editors. Disease Control Priorities: Improving Health and Reducing Poverty. 3rd edition. Washington (DC): The International Bank for Reconstruction and Development / The World Bank; 2017 Nov 27. Chapter 13. Available from: https://www.ncbi.nlm.nih.gov/books/NBK525279/ doi: 10.1596/978-1-4648-0527-1_ch13			
Reference Book	1. Mock, Charles N.; Nugent, Rachel; Kobusingye, Olive; Smith, Kirk R. 2017. Disease Control Priorities, Third Edition: Volume 7. Injury Prevention and Environmental Health. © Washington, DC: World Bank. http://hdl.handle.net/10986/28576 License: CC BY 3.0 IGO. 2. Lecky, F.E., Reynolds, T., Otesile, O. et al. Harnessing inter-disciplinary collaboration to improve emergency care in low- and middle-income countries (LMICs): results of research prioritisation setting exercise. BMC Emerg Med 20, 68 (2020). https://doi.org/10.1186/s12873-020-00362-7			

	3. Anantharaman V et al. From Fragmentation to Integration in Emergency Medicine: Providing Care Our Patients Deserve. Medical Research Archives, [S.l.], v. 12, n. 4, apr. 2024. ISSN 2375-1924. Available at: <https://esmed.org/MRA/mra/article/view/5279>. Date accessed: 24 aug. 2024. doi: https://doi.org/10.18103/mra.v12i4.5279. 4. Jin Y, Maimaitiming M, Li J, Hoving DJ, Yuan B. Coordination of care to improve outcomes of emergency medical services. Cochrane Database Syst Rev. 2023 Mar 10;2023(3):CD015316. doi: 10.1002/14651858.CD015316. PMCID: PMC9999672.

POs Cos	PO1	PO2	PO3	PO4
CO1	1	1	1	1
CO2	1	1	1	1
CO3	1	1	1	1
CO4	2	2	1	1
CO5	1	1	1	1
Avg. PO attained	1.20	1.20	1.00	1.00

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 5	
1	Course Code	ETT3302	
2	Course Title	Quality of Care in Hospitals, Community, and Ambulances and Clinical Care Protocols	
3	Credit	2	
4	Contact Hours (L-T-P)	1-1-0	
5	Course Status	Compulsory	
6	Course Objective	1. To introduce students to quality of care standards and guidelines as proposed by WHO and Indian authorities for emergency healthcare services. 2. To provide knowledge on emergency department, and emergency ambulance care protocol, and guidelines, so the participants can be familiar with these 3. To provide knowledge on how to evaluate and the factors that affect provision of quality care in the specific areas emergency care	
7	Course Outcome	On completion of the course the students will be able to: **CO1:** Describe the quality emergency care and list out the quality of care standards proposed by WHO and what these involve. **CO2:** List out the quality of care standards suggested by the Indian authorities and what these involve **CO3:** Describe emergency care protocols used by Emergency Departments for specific medical condition like cardiac arrest, major trauma, breathless patients and stroke. **CO4:** Describe emergency care protocols for specific medical conditions to be used in emergency ambulances **CO5:** Describe how quality improvement can be promoted and strategies to improve quality of care in hospital emergency departments and emergency ambulances.	
	Course Description	This course provides students with a clear understanding of the quality care guidelines for the emergency services provided by authorities such as WHO and Ministry of Health authorities and protocols for emergency care in hospital emergency departments and in emergency ambulances. The course also provides guidance on measures and strategies that may be considered to improve quality of care in emergency departments and emergency ambulances	
9	Outline Syllabus	Theory	
	Unit-1A	Quality of emergency care in hospitals • Introduction • Definitions Importance of quality in emergency care	CO1
	Unit-1B	Key principles of quality care	CO1

		• Safety • Effectiveness • Patient centeredness • Timelines • Efficiency • Equity	
	Unit-1C	Patient satisfaction as an index of quality and how it may be measured	CO1
	Unit-2A	WHO guidelines on quality care and protocols for emergency care in hospitals and emergency ambulances	CO1
	Unit-2B	Ministry Of Health and Family Welfare Guidelines on quality care and protocols for the emergency services in India	CO2
	Unit-2C	Comparisons of WHO and MOHFW guidelines. Other international quality indices for emergency services	CO1,CO2
	Unit-3A	**Hospital care protocols-** Emergency department: Triage system Patient assessment and operational outcomes	CO3
	Unit-3B	**Emergency Department-** Managing common emergencies- Cardiac arrest Stroke Trauma Heart attacks Bronchial Asthma / COPD Other common emergencies	CO3
	Unit-3C	**Hospital care protocols**- for hospital-wide care: Assessment of patient Monitoring patient Managing falls, and hip fractures Infection control and patient safety	CO3
	Unit-4A	Emergency Ambulance care protocols	CO4
	Unit-4B	**Ambulance** Transportation protocols and standards, including operational and clinical quality standards	CO4
	Unit-4C	Emergency ambulance care protocols – Basic and Advanced care in ambulances	CO4
	Unit-4D	Emergency ambulance care protocols: Coordination with call centres and hospital and, handovers of patient with receiving emergency departments. Hospital standby criteria for critical patients managed by ambulances.	CO4
	Unit-5A	Evaluation and quality improvement- Quality assessment tools	CO5

		Tools for assessing and improving quality of care	
	Unit-5B	Audit of care in emergency ambulances and emergency departments Data collection and analyses	CO5
	Unit- 5C	Continuous improvement strategies Implementing quality improvement initiatives Case study of successful quality improvement projects	CO5

Mode of Examination	Theory			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	

Text Book	1. WHO Tools for strengthening emergency care systems https://www.who.int/emergencycare/ | emergencycare@who.int 2. Quality Framework for Emergency Departments. Australasian College of Emergency Medicine
Reference Book	1. Hansen K, Boyle A, Holroyd B, Phillips G, Benger J, Chartier LB, Lecky F, Vaillancourt S, Cameron P, Waligora G, Kurland L, Truesdale M; IFEM Quality and Safety Special Interest Group. Updated framework on quality and safety in emergency medicine. Emerg Med J. 2020 Jul;37(7):437-442. doi: 10.1136/emermed-2019-209290. Epub 2020 May 13. PMID: 32404345; PMCID: PMC7413575. 2. Emergency Department Transitions of Care: A Quality Measurement Framework. Final Report 2017. National Quality Forum, US Department of Health and Welfare 3. Indian Health Facility Guidelines. Chapter 16: Emergency Unit. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://india.healthfacilityguidelines.com/Guidelines/ViewPDF/HFG-India/part_b_emergency_unit 4. Misra A, Yadav DC, Kole T. Emergency care in India beyond 75 years of independence - problems and solutions. J Glob Health. 2023 Apr 14;13:03015. doi: 10.7189/jogh.13.03015. PMID: 37052203; PMCID: PMC10099406. 5. National Health Systems Resource Centre. Technical Support Institute with National Health Mission https://qps.nhsrcindia.org/national-quality-assurance-standards

POs Cos	PO1	PO2	PO3	PO4
CO1	2	2	1	1
CO2	2	2	1	1
CO3	2	2	1	1
CO4	2	2	2	1
CO5	2	2	2	3
Avg. PO attained	2.00	2.00	1.40	1.40

School: SSAHS		Batch: 2025-29
Program		Bachelor of Science (Emergency and Trauma Care Technology)
Branch :		Semester: 5
1	Course Code	ETP3301
2	Course Title	Clinical Care In Ambulance-2
3	Credit	4
4	Contact Hours (L-T-P)	0-0-8
5	Course Status	Compulsory
6	Course Objective	1- To practice the operational aspects of pre-hospital emergency medical services focused on ambulance operations 2- To practice the assessment and immediate treatment of the injured and ill patients during ambulance runs 3- To practice transportation of patient to appropriate facility and provide care during transport as per the protocols defined by local authority 4- To practice the appropriate communications with the call centre and the receiving hospital in the pre-hospital care setting
7	Course Outcome	On completion of ambulance posting students will be able to: CO1: Demonstrate the non-clinical operational aspects of emergency ambulance practice. CO2: Demonstrate scene assessment and evaluation and initial management of the patient and the use of technologies used in the pre-hospital care settings CO3: Demonstrate the transportation of patient to appropriate facilities and provision of medical care during transportation, as per the local protocols CO4: Communicate with the various persons and authorities with the appropriate mode of communications including Call Centre, fire personnel, law enforcement services and others, as required CO5: Demonstrate the handing and taking over of care of patients with the receiving hospitals and documentation needed for these.
	Course Description	This practical course allows students to practice and acquire skills of emergency pre-hospital care especially in ambulance operations, emergency medical care in the ambulances, use of ambulance protocols, guidelines and communicating with various groups of essential services.
9	Outline Syllabus	Clinical Posting in Ambulance

	Unit- 1	Non-clinical, operational aspects of emergency ambulance	CO1
	Unit- 2	Assessment and evaluation of scene and patient care with usage of appropriate technologies	CO2
	Unit- 3	Transportation of patient with assessment and management	CO3
	Unit- 4	Various stakeholders/ authorities who involve in emergency ambulance services operation and communication with them	CO4
	Unit- 5	Handing and Taking over the patient and documentation	CO5

Mode of Examination	Viva with log-book Submission			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	Nancy Caroline's Emergency Care in the Streets			
Reference Book	1. Emergency Care and Transportation of the Sick and Injured by American Academy of Orthopaedic Surgeons (AAOS) 2. Patient Assessment Practice Scenarios by Les Hawthorne 3. Medical Care Protocols Handbook of Sharda Emergency Ambulance Services			

POs Cos	PO1	PO2	PO3	PO4
CO1	1	1	1	1
CO2	3	3	2	1
CO3	3	3	1	1
CO4	2	2	1	1
CO5	2	2	2	2
Avg. PO attained	2.20	2.20	1.40	1.20

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 5	
1	Course Code	ETP3302	
2	Course Title	Clinical Care in Emergency Departments-2	
3	Credit	4	
4	Contact Hours (L-T-P)	0-0-8	
5	Course Status	Compulsory	
6	Course Objective	1- To practice the operational aspects of emergency department services 2- To practice the reception of casualties and assessment, categorization and initial treatment of patients in the emergency department 3- To practice coordination and transfer of patients from the ED to inpatient departments of the hospital, to other hospitals and receipt of patients being transferred from other hospitals 4- To practice documentation of procedures in the emergency department during the care of patients being managed there	
7	Course Outcome	On completion of the course the students will be able to: CO1: Demonstrate non-clinical operational aspects of emergency department practice including coordination with persons in the pre-hospital, in-hospital, in law-enforcement and others as needed. CO2: Demonstrate the assessment, triaging and initial treatment of the patient in the emergency department as per ED CO3: Demonstrate the process of transfer of care to appropriate facilities within the hospital or transfer to other facilities, continued provision of patient care during these transfers, and documentation of these. CO4: Demonstrate the use of technologies including equipment's used in the emergency department CO5: Demonstrate the use of documentation during care of patients in the emergency department and during receipt and transfer of patients from and to other facilities	
	Course Description	This practical course is designed to equip students with the skills required for managing operations and care given in emergency department and in the patient care journey to and from other facilities	
9	Outline Syllabus	Practical- Clinical Posting in Emergency Department	
	Unit- 1	Non-Clinical operational aspects of emergency department practices	CO1

	Unit- 2	Assessment, triaging and initial treatment in ED ED protocol and technologies used in ED	CO2
	Unit- 3	Transfer of care	CO3
	Unit- 4	Technologies and equipment used in emergency department	CO4
	Unit- 5	Documentation for transfer of care and treatment	CO5

Mode of Examination	Viva and Logbook submission			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	Nancy Caroline's Emergency Care in the Streets- ninth edition			
Reference Book	1. Walsh, A., Bodaghkhani, E., Etchegary, H. et al. Patient-centered care in the emergency department: a systematic review and meta-ethnographic synthesis. Int J Emerg Med 15, 36 (2022). https://doi.org/10.1186/s12245-022-00438-0 2. Richards J. R., van der Linden M. C., and Derlet R. W., Providing care in emergency department hallways: demands, dangers, and deaths, Advances in Emergency Medicine. (2014) 2014, 1–7, https://doi.org/10.1155/2014/495219. 3. Emergency Department Operations and Administration. Editors: Joshua Joseph and Benjamin White. Emergency Medicine Clinics of North America. www.emed.theclinics.com. August 2020. Volume 38. Number 3. 4. Sharda Hospital Emergency Department Protocols			

POs Cos	PO1	PO2	PO3	PO4
CO1	1	1	1	1
CO2	3	3	2	1
CO3	3	3	2	1
CO4	2	2	1	2
CO5	1	1	1	1
Avg. PO attained	2.00	2.00	1.40	1.20

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 5	
1	Course Code	ETP3303	
2	Course Title	Clinical Care in Community Health Centres-2	
3	Credit	4	
4	Contact Hours (L-T-P)	0-0-8	
5	Course Status	Compulsory	
6	Course Objective	1- To practice the operational procedures of a community health care Centre 2- To practice the assessment, categorizations and treatment of the patient at the community healthcare centre 3- To practice the need for transfer of patients to a hospital or to home and overall co-ordination with the appropriate stakeholders 4- To practice documentation of procedures during provision of emergency care at a community healthcare centre	
7	Course Outcome	On completion of course students will be able to: CO1: Demonstrate conduct of community health centre operations including coordination with persons and authorities in hospitals, pre-hospital care providers, law-enforcement personnel and others as needed. CO2: Demonstrate the assessment, triaging and treatment of the patient in the community health centre with appropriate guidelines and protocols CO3: Demonstrate the process of transfer of care to appropriate facilities in the community. CO4: Demonstrate the use of technologies including equipment's used in the community health centre CO5: Demonstrate the use of documentation in the community health centre.	
	Course Description	This course provides students the opportunity to provide emergency care at the community health centre and its facilities to the patients who come there. This allows them to appreciate the emergency conditions that present to these centres and how many of these can be treated at community level without having to be further referred to a hospital.. They also get the opportunity to practice the operational and clinical procedures at the community healthcare centre including assessment, treatment, documentation and patient referral to appropriate facilities.	
9	Outline Syllabus	Practical- Clinical Posting	
	Unit- 1	Community health centre operations	CO1
	Unit- 2	Assessment and treatment in community health centre	CO2

	Unit- 3	Transfer of care from community health centre to appropriate facilities	CO3
	Unit- 4	Equipment and technologies in community health centre	CO4
	Unit- 5	Documentation in community health centre	CO5

Mode of Examination	Practical			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	Nancy Caroline's Emergency Care in the Streets- ninth edition			
Reference Book	1. Emergency Care and Transportation of the Sick and Injured by American Academy of Orthopaedic Surgeons (AAOS) 2. Workbook for Anatomy, Physiology & Disease: Foundation for the Health Professions by Deborah Roiger and Nia Bullock 3. Patient Assessment Practice Scenarios by Les Hawthorne 4. Botes M, Bruce J, Cooke R. How Health Care Practitioners experience emergencies at Primary Health Care facilities - Kinks in the chain of survival. Afr J Emerg Med. 2022 Dec;12(4):423-427. doi: 10.1016/j.afjem.2022.09.001. Epub 2022 Sep 30. PMID: 36211986; PMCID: PMC9531042. 5. Strategic directions to integrate emergency care services into primary health care in the South-East Asia Region. World Health Organisation 2020. 6. Primary health care and health emergencies. Technical Series on Primary Healthcare. World Health Organisation			

POs Cos	PO1	PO2	PO3	PO4
CO1	1	1	1	1
CO2	3	3	2	1
CO3	2	2	1	1
CO4	2	2	2	1
CO5	1	1	1	1
Avg. PO attained	1.80	1.80	1.40	1.00

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 05	
1	Course Code	ETP3304	
2	Course Title	Clinical Care in ICU	
3	Credit	03	
4	Contact Hours (L-T-P)	0-0-6	
5	Course Status	Compulsory	
6	Course Objective	1- To practice operational procedures carried out at an Intensive care Unit 2- To practice the assessment, and partnering other staff in the treatment of patients in an intensive care unit 3- To understand and work with Eds and general wards in taking over patients into the ICU and in decanting patients to step-down care facilities when appropriate 4- To practice documentation of procedures at an intensive care unit	
7	Course Outcome	On completion of the ICU posting students will be able to: CO1: Demonstrate ability to carry out basic ICU operational procedures including coordination with persons and authorities needed for the different tasks CO2: Demonstrate the assessment, treatment of the patient in an ICU setting with appropriate guidelines and protocols CO3: Demonstrate the process of transfer of care to appropriate facilities within the hospital. CO4: Demonstrate the use of technologies including equipment used in ICU CO5: Demonstrate the ability to provide the standard of documentation required for critically ill and injured patients.	
	Course Description	This comprehensive skill orientated course is designed for students to practice the assessment and treatment of a patient in ICU and also carry out basic ICU operational procedures.	
9	Outline Syllabus	**Practical**	
	Unit- 1	ICU operations	CO1
	Unit- 2	Assessment and treatment of patient in ICU and protocols	CO2
	Unit- 3	Transfer of care within the hospital facilities	CO3
	Unit- 4	Equipment and technologies used in ICU	CO4
	Unit- 5	Documentation in ICU	CO5

Mode of Examination	Viva and Logbook			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	

Text Book	Nancy Caroline's Emergency Care in the Streets-ninth edition
Reference Book	1. Emergency Care and Transportation of the Sick and Injured by American Academy of Orthopaedic Surgeons (AAOS) 2. Package for Emergency Resuscitation and Intensive Care Unit. World Health organization. 3. Emergency Room and ICU Procedures: slide presentation. https://www.slideshare.net/slideshow/emergency-and-icu-procedures-presentation/700692 4. Florian Falter. Bedside Procedures in the ICU. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://capcuuamateur.wordpress.com/wp-content/uploads/2013/10/bedside-procedures-in-the-icu-ed-f-falter-2012.pdf

POs Cos	PO1	PO2	PO3	PO4
CO1	1	1	1	1
CO2	3	3	2	1
CO3	2	2	1	1
CO4	2	2	2	1
CO5	1	1	1	1
Avg. PO attained	1.80	1.80	1.40	1.00

School: SSAHS		Batch: 2025-28	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 05	
1	Course Code	ETP3305	
2	Course Title	Disaster Management Exercise-1	
3	Credit	1	
4	Contact Hours (L-T-P)	0-0-2	
5	Course Status	Compulsory	
6	Course Objective	1- To familiarize students with policies and procedures for hospitals and health services in disasters 2- To practice students in the procedures for disaster management at a disaster site, at hospitals and in coordination of health facilities during such disasters 3- To practice students in preparing disaster management plans for a variety of incidents 4- To provide students the opportunity to participate in a disaster exercise involving the disaster site	
7	Course Outcome	At the end of course students will be able to: CO1: Demonstrate the ability to mobilize emergency resources at the disaster site CO2: Demonstrate the ability to re-orgazise the Emergency department for a local disaster CO3: Demonstrate the ability to coordinate the various functions required for disaster management at site CO4: Demonstrate the ability to coordinate the various functions required for disaster management in a hospital. CO5: Evaluate the disaster site	
	Course Description	This practical skill oriented course is designed to equipped students with the skills required for disaster management at site and in the hospital	
9	Outline Syllabus	Practical	
	Unit- 1	Mobilization of emergency resources at disaster site	CO1
	Unit- 2	Re- organize the emergency department for a local disaster	CO2
	Unit- 3	Coordination for required functions at site	CO3
	Unit- 4	Coordination for required functions in a hospital	CO4
	Unit- 5	Evaluation and reevaluation of disaster site	CO5

Mode of Examination	Viva and spotting			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	

Text Book	Nancy Caroline's Emergency Care in the Streets
Reference Book	1. Emergency Care and Transportation of the Sick and Injured by American Academy of Orthopaedic Surgeons (AAOS) 2. Hospital Disaster management Guidelines. Directorate of Health Services, Kerala. 3. Guidelines for Hospital Emergency Preparedness Planning. National Disaster management Authority, India 4. Disaster Management Plan, National Centre for Disease Control, Delhi. Ministry of Health & Family Welfare Government of India

POs Cos	PO1	PO2	PO3	PO4
CO1	1	1	1	1
CO2	1	1	1	1
CO3	2	2	1	1
CO4	2	2	1	1
CO5	3	2	1	1
Avg. PO attained	1.80	1.60	1.00	1.00

6th Semester

Program Structure Template
School of Allied Health Sciences
Bachelor of Science (Emergency and Trauma Care Technology)
Batch: 2025-29
TERM:6

Sr. No.	Subject Code	Subject	Teaching Load			Credit	Core/ Elective/Pre Requisite/Co Requisite	Type of Course CC/AEC C/SEC/DSE
			L	T	P			
Practical Modules								
1	ETP3321	Critical Appraisal of research literature, Data collection, and analysis	0	0	06	03	Major	CC
2	ETP3322	Quality Service and Project implementation in the Emergency Department	0	0	04	02	Major	CC
3	ETP3323	Clinical Care in Emergency Ambulance-3	0	0	08	04	Major	CC
4	ETP3324	Clinical Care in Emergency Department-3	0	0	08	04	Major	CC
5	ETP3325	Clinical Care in Community Health Centre-3	0	0	08	04	Major	CC
6	ETP3326	Instructor for Life Support Provider Training	0	0	04	02	Minor	CC
7	ETP3327	Disaster Management and Exercise-3	0	0	02	01	Minor	CC
Total Hours			0	0	40	20		

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 6	
1	Course Code	ETP3321	
2	Course Title	Critical Appraisal of research literature, Data collection, and analysis	
3	Credit	3	
4	Contact Hours (L-T-P)	0-0-6	
5	Course Status	Compulsory	
6	Course Objective	1- To teach students how to conduct critical appraisal of research literature 2- To continue collection of data for chosen research projects 3- To analyze collected research data	
7	Course Outcome	At the end of the course, the students will be able to: CO1: Demonstrate their ability to conduct critical appraisal of diagnostic and therapeutic studies CO2: Demonstrate their ability to complete the data collection process for the studies they have chosen to conduct CO3: Demonstrate their ability to organize and analyze the data collected. CO4: Demonstrate their ability to draft the research report CO5: Conduct a presentation of their study reports	
	Course Description	This skills based course will not only enable the students to conduct critical appraisal of the published scientific literature, but also use the lessons learnt to ensure that their system of data collection and analysis for their own research projects can withstand similar critical analysis.	
9	Outline Syllabus	Practical	
	Unit-1A	Principles of critical appraisal of research literature	CO1
	Unit-1B	Critical appraisal of diagnostic studies	CO1
	Unit-1C	Critical appraisal of therapeutic studies	CO1
	Unit-1D	Practical exercises in critical appraisal of diagnostic literature	CO1
	Unit-1E	Practical exercises in critical appraisal of therapeutic literature	CO1
	Unit-2A	Data collection for research project	CO2
	Unit-2B	Transfer of data collected to electronic spreadsheet	CO2
	Unit-2C	Conduct of data cleaning for analysis and drafting of questions for data analysis	CO2
	Unit-3A	Organizing data into analysis packets	CO3

	Unit-3B	Conducting analysis of research data collected	CO3
	Unit-3C	Reviewing and refining analysed data	CO3
	Unit-4A	Drafting the background, objectives, methods and data analysis sections of the research project report	CO4
	Unit-4B	Drafting the Results section of the report	CO4
	Unit-4C	Drafting the Discussion and Conclusion sections of the report	CO4
	Unit-5A	Preparing the Powerpoint presentation of the report	CO5
	Unit-5B	Reviewing the presentation with peers and mentors	CO5
	Unit-5C	Presentation of final study report	CO5

Mode of Examination	Viva			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	Users' Guides to the Medical Literature: A Manual for Evidence-based Clinical Practice by Gordon Guyatt and Drummond Rennie			
Reference Book	1- "How to read a paper- The basics of evidence based medicine and healthcare" 2- Data collection research methods in applied linguistics- Health rose, Jim Mckinley and Jessica Briggs Baffoe-Djan 3- Research methods for health care practice- Frances Griffiths			

POs Cos	PO1	PO2	PO3	PO4
CO1	2	2	1	3
CO2	1	1	1	3
CO3	2	2	1	3
CO4	1	1	1	3
CO5	1	1	1	3
Avg. PO attained	1.40	1.40	1.00	3.00

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 6	
1	Course Code	ETP3322	
2	Course Title	Quality Service and Project implementation in the Emergency Department	
3	Credit	2	
4	Contact Hours (L-T-P)	0-0-4	
5	Course Status	Compulsory	
6	Course Objective	1- To practice conducting a quality service project in the Emergency Department 2- To learn how guidelines may be implemented in the emergency department	
7	Course Outcome	At the end of the course the students will be able to: CO1: Demonstrate their ability to identify areas for quality improvement projects in the emergency department. CO2: Demonstrate their ability to conduct a quality service improvement project in the emergency department, including data collection and analysis CO3: Demonstrate their ability to analyze the data and draft the study report CO4: Demonstrate their ability to present the draft to a group of reviewers CO5: Demonstrate their ability to effectively implement guideline in the emergency department	
	Course Description	This practical course will enable students to determine areas for quality improvement projects, conduct such a project, analyse the results and present these to a group of reviewers. In addition, the course will also enable them to implement changes in guidelines or practice in an ED setting.	
9	Outline Syllabus	Practical	
	Unit-1A	Quality improvement in emergency department- principles, concepts and QI models	CO1
	Unit-1B	Identifying area of improvement- Common issues in emergency department	CO1
	Unit-1C	Review of previous Quality projects undertaken in the emergency services	CO1
	Unit-2A	Project selection and scoping, forming project team	CO2
	Unit-2B	Project Planning and management	CO2
	Unit-2C	Data collection	CO2
	Unit-3A	Data Analysis using Quality Management tools	CO3
	Unit-3B	Data Interpretation, drawing conclusions and discussing recommendations	CO3
	Unit-3C	Drafting the QI report	CO3

	Unit-4A	Use of powerpoint in research and QI presentations	CO4
	Unit-4B	Preparing the Powerpoint presentation	CO4
	Unit-4C	Rehearsing and Presenting the QI report	CO4
	Unit-5A	Implementing guidelines in emergency department- Introduction and reviewing the existing guidelines	CO5
	Unit-5B	Implementing revised guideline in the ED	CO5
	Unit-5C	Practical implementation and reflections	CO5

Mode of Examination	Viva			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	1. WHO Tools for strengthening emergency care systems https://www.who.int/emergencycare/ | emergencycare@who.int 2. Quality Framework for Emergency Departments. Australasian College of Emergency Medicine 3. Quality Improvement in Healthcare: A Practical Approach by Batalden and Davidoff			
Reference Book	. Hansen K, Boyle A, Holroyd B, Phillips G, Benger J, Chartier LB, Lecky F, Vaillancourt S, Cameron P, Waligora G, Kurland L, Truesdale M; IFEM Quality and Safety Special Interest Group. Updated framework on quality and safety in emergency medicine. Emerg Med J. 2020 Jul;37(7):437-442. doi: 10.1136/emermed-2019-209290. Epub 2020 May 13. PMID: 32404345; PMCID: PMC7413575. 2. Emergency Department Transitions of Care: A Quality Measurement Framework. Final Report 2017. National Quality Forum, US Department of Health and Welfare 3. Indian Health Facility Guidelines. Chapter 16: Emergency Unit. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://india.healthfacilityguidelines.com/Guidelines/ViewPDF/HFG-India/part_b_emergency_unit 4. Misra A, Yadav DC, Kole T. Emergency care in India beyond 75 years of independence - problems and solutions. J Glob Health. 2023 Apr 14;13:03015. doi: 10.7189/jogh.13.03015. PMID: 37052203; PMCID: PMC10099406. 5. National Health Systems Resource Centre. Technical Support Institute with National Health Mission https://qps.nhsrcindia.org/national-quality-assurance-standards 6. Research methods for health care practice- Frances Griffiths			

POs Cos	PO1	PO2	PO3	PO4
CO1	1	1	1	3
CO2	1	1	1	3
CO3	1	1	1	3
CO4	1	1	2	3
CO5	1	1	1	3
Avg. PO attained	1.00	1.00	1.20	3.00

School: SSAHS		Batch: 2025-29
Program		Bachelor of Science (Emergency and Trauma Care Technology)
Branch :		Semester: 6
1	Course Code	ETP3323
2	Course Title	Clinical Care in Emergency Ambulance-3
3	Credit	4
4	Contact Hours (L-T-P)	0-0-8
5	Course Status	Compulsory
6	Course Objective	5- To practice the operational aspects of pre-hospital emergency medical services focused on ambulance operations with less supervision 6- To practice the assessment and immediate treatment of the injured and ill patients during ambulance runs with less supervision 7- To practice transportation of patient to appropriate facility and provide care during transport as per the protocols defined by local authority 8- To practice the appropriate communications with the call centre and the receiving hospital in the pre-hospital care setting
7	Course Outcome	On completion of ambulance posting students will be able to: On completion of ambulance posting students will be able to: CO1: Demonstrate the non-clinical operational aspects of emergency ambulance practice. CO2: Demonstrate scene assessment and evaluation and initial management of the patient and the use of technologies used in the pre-hospital care settings CO3: Demonstrate the transportation of patient to appropriate facilities and provision of medical care during transportation, as per the local protocols CO4: Communicate with the various persons and authorities with the appropriate mode of communications including Call Centre, fire personnel, law enforcement services and others, as required CO5: Demonstrate the handing and taking over of care of patients with the receiving hospitals and documentation needed for these.
	Course Description	This practical course is designed for students to further practice the skills of pre-hospital emergency care in ambulance operations utilizing their knowledge of emergency ambulance protocols and guidelines.
9	Outline Syllabus	Clinical Posting

	Unit- 1A	Orientation to Ambulance Call centre and visits to other call centres, e.g. 108, etc.	CO1
	Unit-1B	Administering an ambulance fleet and its logistics	CO1
	Unit-1C	Human resource management of ambulance services	CO1
	Unit- 2A	Assessment and evaluation of scene	CO2
	Unit-2B	Systematic patient evaluation in the ambulance	CO2
	Unit-2C	Patient evaluation with ambulance technologies	CO2
	Unit- 3A	Patient transport from site to ambulance and from ambulance to hospital	CO3
	Unit-3B	Assessment of patients in the moving ambulance	CO3
	Unit-3C	Continuing patient treatment in the ambulance	CO3
	Unit- 4A	The ambulance crew and interactions with the call centre	CO4
	Unit-4B	Interactions of ambulance crew and public	CO4
	Unit-4C	Relationship of ambulance services and receiving hospitals	CO4
	Unit- 5A	The Ambulance Case Record- manual / electronic	CO5
	Unit-5B	Choosing the destination hospital	CO5
	Unit-5C	Load and Go criteria and placing receiving hospitals on standby	CO5
	Unit-5D	Handing and Taking over the patient and documentation	CO5

Mode of Examination	Viva			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	Nancy Caroline's Emergency Care in the Streets			
Reference Book	1. Emergency Care and Transportation of the Sick and Injured by American Academy of Orthopaedic Surgeons (AAOS) 2. Patient Assessment Practice Scenarios by Les Hawthorne 3. Medical Care Protocols Handbook of Sharda Emergency Ambulance Services 4. What is an Ambulance Dispatch System, & How Does it Work? https://www.rescusaveslives.com/blog/what-is-an-ambulance-dispatch-system-how-does-it-work/ 5. Care Quality Commission. Inspection framework: NHS Ambulance Services Core service: Emergency Operations Centre (EOC). 6. Wilson, C., Howell, AM., Janes, G. et al. The role of feedback in emergency ambulance services: a qualitative interview study. BMC Health Serv Res			

	22, 296 (2022). https://doi.org/10.1186/s12913-022-07676-1

POs Cos	PO1	PO2	PO3	PO4
CO1	1	1	1	1
CO2	3	3	2	1
CO3	3	3	1	1
CO4	2	2	1	1
CO5	2	2	2	2
Avg. PO attained	2.20	2.20	1.40	1.20

School: SSAHS		Batch: 2024-28	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 6	
1	Course Code	ETP3324	
2	Course Title	Clinical care in the Emergency Department-3	
3	Credit	4	
4	Contact Hours (L-T-P)	0-0-8	
5	Course Status	Compulsory	
6	Course Objective	To further practice the operational aspects of emergency department services under reduced supervision To practice the reception of casualties and assessment, categorization and initial treatment of patients in the emergency department under reduced supervision To practice coordination and transfer of patients from the ED to inpatient departments of the hospital, to other hospitals and receipt of patients being transferred from other hospitals To practice documentation of procedures in the emergency department during the care of patients being managed there	
7	Course Outcome	On completion of course students will be able to demonstrate Level 3 of the Haddon's Matrix: CO1: Non-clinical operational aspects of emergency department practice including coordination in the pre-hospital, in-hospital, in law-enforcement and others as needed. CO2: Demonstrate the assessment, triaging and initial treatment of the patient in the emergency department as per ED protocols and the use of technologies within the ED CO3: Demonstrate the process of transfer of care to appropriate facilities within the hospital or transfer to other facilities, continued provision of patient care during these transfers, and documentation of these. CO4: Demonstrate the use of technologies including equipment's used in the emergency department CO5: Demonstrate the use of documentation during care of patients in the emergency department and during receipt and transfer of patients from and to other facilities	
	Course Description	This practical course is designed to equipped students with the skills required for managing operations and care given in emergency department	
9	Outline Syllabus	Practical	
	Unit- 1A	Demonstrate patient flow systems in ED Triage	CO1
	Unit-1B	Demonstrate patient flow for Priority 1 and 2 patients	CO1

	Unit-1C	Demonstrate system of patient flow for Ambulatory patients in the ED	CO1
	Unit-1D	Demonstrate patient flows in the Emergency Observation Ward	CO1
	Unit- 2A	Triage Training	CO2
	Unit-2B	Initiating investigations in the ED	CO2
	U nit-2C	Initiating treatments in the ED	CO2
	Unit- 3A	Transfer of care from ED to Wards	CO3
	Unit-3B	Transfer of care from ED to other hospitals	CO3
	Unit-3C	Transfer of care within the ED	CO3
	Unit-4A	Technologies used in emergency department	CO4
	Unit-4B	Familiarization with ED Equipment	CO4
	Unit-4C	Demonstrating use of ED equipment on patients	CO4
	Unit-5A	Documentation for transfer of care	CO5
	Unit-5B	Emergency Department Case Record	CO5
	Unit-5C	Triage and Emergency Paramedic Documentation	CO5

Mode of Examination	Viva			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	1. Nancy Caroline's Emergency Care in the Streets			
Reference Book	1. Walsh, A., Bodaghkhani, E., Etchegary, H. et al. Patient-centered care in the emergency department: a systematic review and meta-ethnographic synthesis. Int J Emerg Med 15, 36 (2022). https://doi.org/10.1186/s12245-022-00438-0 2. Richards J. R., van der Linden M. C., and Derlet R. W., Providing care in emergency department hallways: demands, dangers, and deaths, Advances in Emergency Medicine. (2014) 2014, 1–7, https://doi.org/10.1155/2014/495219. 3. Emergency Department Operations and Administration. Editors Joshua Joseph and Benjamin White. Emergency Medicine Clinics of North America. www.emed.theclinics.com . August 2020. Volume 38. Number 3. 4. Sharda Hospital Emergency Department Protocols			

POs Cos	PO1	PO2	PO3	PO4
CO1	1	1	1	1
CO2	3	3	2	1
CO3	3	3	2	1
CO4	2	2	1	2
CO5	1	1	1	1
Avg. PO attained	2.00	2.00	1.40	1.20

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 6	
1	Course Code	ETP3325	
2	Course Title	Clinical Care in Community Health Centre-3	
3	Credit	4	
4	Contact Hours (L-T-P)	0-0-8	
5	Course Status	Compulsory	
6	Course Objective	5- To practice the operational procedures of a community health care Centre 6- To practice the assessment, categorizations and treatment of the patient at the community healthcare centre 7- To practice the need for transfer of patients to a hospital or to home and overall co-ordination with the appropriate stakeholders 8- To practice documentation of procedures during provision of emergency care at a community healthcare centre	
7	Course Outcome	On completion of course students will be able to: CO1: Demonstrate conduct of community health centre operations including coordination with persons and authorities in hospitals, pre-hospital care providers, law-enforcement and others as needed. CO2: Demonstrate the assessment, triaging and treatment of the patient in the community health centre with appropriate guidelines and protocols CO3: Demonstrate the process of transfer of care to appropriate facilities within the hospital or transfer through inter-facilityin the community. CO4: Demonstrate the use of technologies including equipment's used in the community health centre CO5: Demonstrate the use of documentation in the community health centre.	
	Course Description	This course provides students the opportunity to provide emergency care at the community health centre and its facilities to the patients who come there. This allows them to appreciate the emergency conditions that present to these centres and how many of these can be treated at community level without having to be further referred to a hospital. They also get the opportunity to practice the operational and clinical procedures at the community healthcare centre including assessment, treatment, documentation and patient referral to appropriate facilities.	
9	Outline Syllabus	Practical- Clinical Posting	
	Unit- 1A	Community health centre organisation and set-up	CO1

	Unit-1B	Management of patient flow within the community health centre	CO1
	Unit-1C	Identifying requirements for emergency patients arriving at he community health centres	CO1
	Unit-2A	Triaging patients arriving at Community Health Centres	CO2
	Unit-2B	Providing Emergency Treatments in Community Health Centres	CO2
	Unit- 2C	Providing protocol-based Observation Care in community health centres	CO2
	Unit-3A	Identifying patients who require transfer to other facilities	CO3
	Unit- 3B	Arranging transfer of care from community health centre to appropriate facilities	CO3
	Unit-3C	Conduct of Patient Transfers to appropriate other facilities	CO3
	Unit-4A	Conducting Patient Education in Community Health centres	CO4
	Unit- 4B	Organisation of and acquisition of Equipment for community health centre	CO4
	Unit-4C	Using Information and other technologies to enhance care provision at Community Health Centres	CO4
	Unit- 5A	Idntifying Documentation Requirements for community health centre	CO5
	Unit-5B	Performing clinical documentation in Community Health Centres	CO5
	Unit-5C	Using Documentation to review quality of care in Community Health Centres	CO5

Mode of Examination	Viva			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	Nancy Caroline's Emergency Care in the Streets- ninth edition			
Reference Book	1. Emergency Care and Transportation of the Sick and Injured by American Academy of Orthopaedic Surgeons (AAOS) 2. Workbook for Anatomy, Physiology & Disease: Foundation for the Health Professions by Deborah Roiger and Nia Bullock 3. Patient Assessment Practice Scenarios by Les Hawthorne 4. Botes M, Bruce J, Cooke R. How Health Care Practitioners experience emergencies at Primary Health Care facilities -			

	Kinks in the chain of survival. Afr J Emerg Med. 2022 Dec;12(4):423-427. doi: 10.1016/j.afjem.2022.09.001. Epub 2022 Sep 30. PMID: 36211986; PMCID: PMC9531042. 5. Strategic directions to integrate emergency care services into primary health care in the South-East Asia Region. World Health Organisation 2020. 6. Primary health care and health emergencies. Technical Series on Primary Healthcare. World Health Organisation

POs Cos	PO1	PO2	PO3	PO4
CO1	1	1	1	1
CO2	3	3	2	1
CO3	2	2	1	1
CO4	2	2	2	1
CO5	1	1	1	1
Avg. PO attained	1.80	1.80	1.40	1.00

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 06	
1	Course Code	ETP3326	
2	Course Title	Instructor for Life Support Provider Training	
3	Credit	2	
4	Contact Hours (L-T-P)	0-0-4	
5	Course Status	Compulsory	
6	Course Objective	To provide the students with opportunities to polish their knowledge and skills in imparting these knowledge and skills to previously untrained persons.	
7	Course Outcome	At the end of the course, the students will be able to: CO1: Teach Basic Cardiac Life Support course to previously untrained persons CO2: Teach Basic Standard First Aid Provider Course to previously untrained persons CO3: Teach the Basic Trauma Life Support course to previously untrained persons CO4: Conduct Basic Community First Responder Training to previously untrained persons CO5: Demonstrate professionalism in training programs	
	Course Description	This practical course provides the students the opportunity to teach a variety of life support provider programs to previously untrained persons.	
9	Outline Syllabus	**Practical**	CO mapping
	Unit- 1	Participate as an Instructor in Basic Cardiac Life Support	CO1
	Unit- 2	Participate as an Instructor in Standard First Aid Provider training	CO2
	Unit- 3	Participate as an Instructor in Basic Trauma Life Support	CO3
	Unit- 4	Participate as an Instructor in Community First Responder Training	CO4
	Unit- 5	Demonstrate conduct of assessments during life support training programs	CO5

Mode of Examination	Viva			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	

Text Book	1. BCLS + AED Instructor Training Handbook. By National Heart Centre Singapore 2. BCLS Instructor Manual 3. BTLS Instructor Manual 4. Standard First Aid Instructor Manual 5. Community First Responder Instructor Manual
Reference Book	1. Singapore Resuscitation and First Aid Council Reference Guide for Basic Cardiac Life Support with Automated External Defibrillator (BCLS+AED) Training Centre/Instructor-Training Centre (TC/ITC) 2. Basic Life Support Instructor Essentials Faculty Guide. American Heart Association. 2021. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://cpr.heart.org/-/media/CPR2-Files/Course-Materials/Instructor-Essentials/BLS/2021-BLS-Instructor-Essentials/BLS-Instructor-Essentials-Faculty-Guide_ucm_506913.pdf Nancy Caroline's Emergency Care in the Streets 3. International Trauma Life Support for Emergency Care Providers. Roy Alson, John Campbell. 9th Edition. 4. What are the benefits of instructor-led training for training providers and learners? https://www.arlo.co/blog/benefits-of-instructor-led-training

POs Cos	PO1	PO2	PO3	PO4
CO1	2	2	3	1
CO2	2	2	3	1
CO3	2	2	3	1
CO4	2	2	3	1
CO5	1	1	3	1
Avg. PO attained	1.80	1.80	3.00	1.00

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 06	
1	Course Code	ETP3327	
2	Course Title	Disaster Management and Exercise-3	
3	Credit	01	
4	Contact Hours (L-T-P)	0-0-2	
5	Course Status	Compulsory	
6	Course Objective	5- To practice operational procedures for hospital management of disasters 6- To practice disaster triage procedures in a hospital 7- To practice coordination of resources at the Emergency Department and the Hospital during a disaster 8- To participate in a disaster exercise involving the casualties being brought to a hospital.	
7	Course Outcome	At the end of course students will be able to: CO1: Demonstrate the ability to organize resources at the Emergency Department for disaster care CO2: Demonstrate the ability to prepare a hospital disaster management plan CO3:Coordinate patient flow in a hospital during a simulated disaster CO4: Demonstrate the ability to function effectively during the hospital's management of a disaster in its vicinity. CO5: Evaluate the disaster site	
	Course Description	This practical skill oriented course is designed to equipped students with the ability to function effectively in various roles when a hospital is managing casualties from a disaster site.	
9	Outline Syllabus	Practical	
	Unit-1A	Determining requirements for Emergency Department when managing a disaster	CO1
	Unit- 1B	Organisation of Resources for emergency department during disasters	CO1
	Unit-1C	Utilizing and replenishing ED resources during disasters	CO1
	Unit- 2A	Components of Hospital disaster management plan	CO2
	Unit-2B	Drafting a Departmental Disaster Management Plan	CO2
	Unit-2C	Activation and Mobilization of Manpower for the Emergency Department during disasters	CO2
	Unit-3A	Patient flow systems during disasters	CO3

	Unit-3B	Managing ED and Inpatients discharges and transfers during a disaster exercise	CO3
	Unit- 3C	Coordination of patient flow within a hospital during a disaster exercise	CO3
	Unit-4A	Command and Control of a Hospital during disasters	CO4
	Unit-4B	Command and Control of the Emergency Department during a disaster	CO4
	Unit- 4C	Management of an In-hospital disaster	CO4
	Unit-5A	Evaluation of Medical Needs at a Disaster Site	CO5
	Unit-5B	Map-Planning exercises for medical support for multiple disaster scenarios	CO5
	Unit- 5C	Planning and organisation of medical support at disaster site during a disaster exercise	CO5

Mode of Examination	Viva and spotting			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	Nancy Caroline's Emergency Care in the Streets- ninth edition			
Reference Book	1. Emergency Care and Transportation of the Sick and Injured by American Academy of Orthopaedic Surgeons (AAOS) 2. Hospital Disaster management Guidelines. Directorate of Health Services, Kerala. 3. Guidelines for Hospital Emergency Preparedness Planning. National Disaster management Authority, India 4. Disaster Management Plan, National Centre for Disease Control, Delhi. Ministry of Health & Family Welfare Government of India			

POs Cos	PO1	PO2	PO3	PO4
CO1	1	1	1	1
CO2	1	1	1	1
CO3	2	2	1	1
CO4	3	3	1	1
CO5	3	2	1	1
Avg. PO attained	1.80	1.60	1.00	1.00

SHARDA UNIVERSITY
Beyond Boundaries

7th Semester

Program Structure Template
School of Allied Health Sciences
Bachelor of Science (Emergency and Trauma Care Technology)
Batch: 2025-29
TERM:7

Sr. No.	Subject Code	Subject	Teaching Load			Credit	Core/Elective/ Pre Requisite/Co Requisite	Type of Course CC/AEC C/SEC/DSE
			L	T	P			
Practical- Internship								
1	ETP4401	**Clinical Internship Posting -1**	00	00	06	3	Major	CC
2	ETP4402	**Clinical Internship Posting -2**	00	00	06	3	Major	CC
3	ETP4403	**Clinical Internship Posting -3**	00	00	20	10	Major	CC
4	ETP4404	Simulation in Emergency Care	00	00	04	2	Major	CC
5	ETP4405	Instructor for Life Support Training Courses	00	00	04	2	Minor	CC
Total Hours			00	00	40	20		

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 07	
1	Course Code	ETP4401	
2	Course Title	**Clinical Internship Posting -1**	
3	Credit	3	
4	Contact Hours (L-T-P)	0-0-6	
5	Course Status	Compulsory	
6	Course Objective	**1-** To practice on respiratory and cardiovascular diseases assessment (including history taking, physical examination, point-of-care tests and other investigations) and treatment that affect these systems. **2-** To practice the students in performing ECGs, identifying abnormalities and suggesting treatments accordingly 3- To practice the students on assessment (including history taking, physical examination, point-of-care tests and other investigations) and treatment of musculoskeletal disorders.	
7	Course Outcome	On completion of the course, the students will be able to: **CO1:** Demonstrate their ability in taking vital signs and ECGs and identifying normal and abnormal results. **CO2**: Demonstrate their abilities in conducting assessment of cardiac and respiratory disorders. **CO3:** Demonstrate their abilities in suggesting likely differential diagnoses and likely approaches to management for cardiac and respiratory disorders with performance of basic practical procedures under supervision. **CO4:** Demonstrate their abilities in conducting assessment of musculoskeletal injuries and disorders **CO5**: Demonstrate their abilities in suggesting likely differential diagnoses and likely approaches to treatment of musculoskeletal injuries and disorders, including plaster of Paris application, splints and appropriate bandaging	
	Course Description	This course enables the student to demonstrate their proficiency in the assessment and management of respiratory, cardiovascular and musculoskeletal system disorders	
9	Outline Syllabus	Practical- Clinical Posting	
	Unit-1	Vital Signs and ECG	CO1
	Unit- 2	Assessment of cardiorespiratory emergencies	CO2

	Unit- 3	Differential diagnosis, management of cardiorespiratory emergencies and basic practical procedures	CO3
	Unit- 4	Assessment of musculoskeletal injuries and disorders	CO4
	Unit- 5	Differential diagnosis in musculoskeletal injuries, Plaster of Paris, splint and bandaging	CO5

Mode of Examination	Practical- Clinical case Scenarios			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	Nancy Caroline's Emergency Care in the Streets- ninth edition			
Reference Book	1. Adult Cardiac Arrest Case Flow Sheet. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://cdn-links.lww.com/permalink/sih/a/sih_2023_09_15_rodgers_sih-d-23-00080_sdc1.pdf 2. Emergency Scenario Training Guidance Document. UKCRF Network. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.ukcrfnetwork.co.uk/app/uploads/2023/07/Emergency-Scenario-Guidance-V5.pdf 3. Simulation Scenarios. Frimley Health. NHS Foundation Trust. https://www.fhft.nhs.uk/careers/clinical-education/quest-home/simulation-scenarios/			

POs Cos	PO1	PO2	PO3	PO4
CO1	3	2	2	1
CO2	3	2	2	1
CO3	3	3	2	1
CO4	3	2	2	1
CO5	3	3	2	1
Avg. PO attained	3.00	2.40	2.00	1.00

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 07	
1	Course Code	ETP4402	
2	Course Title	Clinical Internship Posting-2	
3	Credit	3	
4	Contact Hours (L-T-P)	0-0-6	
5	Course Status	Compulsory	
6	Course Objective	1- To practice the students on the assessment (including history taking, physical examination, point-of-care tests and other investigations) and treatment of disorders related to the gastrointestinal, renal, urological emergencies and acid-base disorders 2- To practice the students on the assessment (including history taking, physical examination, point-of-care tests and other investigations) and treatment of infectious diseases 3- To practice the students on the conduct of procedures related to the assessment and treatment of gastrointestinal, renal and urological emergencies, acid-base disorders and infectious diseases	
7	Course Outcome	On completion of the course, the students will be able to: CO1: Demonstrate their ability to assess patients with gastrointestinal, renal and urological emergencies. CO2: Demonstrate their ability to assess patients with acid-base disorders CO3: Demonstrate their ability to assess patients with infectious diseases CO4: Demonstrate their ability to suggest likely differential diagnoses and likely approaches to management to these emergencies CO5: Demonstrate their ability to perform practical procedures relevant to the management of these disorders	
	Course Description	This skill based course allows students to assessing and suggesting management approaches for patients with disorders of gastrointestinal, renal and urological systems, acid-base disorders and infectious diseases and to perform practical procedures related to their management.	
9	Outline Syllabus	Practical- Clinical Posting	
	Unit- 1	Assessment of patients with gastrointestinal, renal and urological emergencies	CO1
	Unit- 2	Assessment of patients with Acid base disorders	CO2

	Unit- 3	Assessment of patients with infectious disease	CO3
	Unit- 4	differential diagnoses and approaches to management to gastrointestinal, renal, urological, acid base disorders and infectious diseases emergencies	CO4
	Unit- 5	Practical procedures related to gastrointestinal, renal, urological, acid base disorders and infectious diseases emergencies	CO5

Mode of Examination	Practical- Clinical case Scenarios			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	Nancy Caroline's Emergency Care in the Streets- ninth edition			
Reference Book	1. Emergency Scenario Training Guidance Document. UKCRF Network. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.ukcrfnetwork.co.uk/app/uploads/2023/07/Emergency-Scenario-Guidance-V5.pdf 2. Simulation Scenarios. Frimley Health. NHS Foundation Trust. https://www.fhft.nhs.uk/careers/clinical-education/quest-home/simulation-scenarios/			

POs Cos	PO1	PO2	PO3	PO4
CO1	3	2	2	1
CO2	3	2	2	1
CO3	3	2	2	1
CO4	3	3	2	1
CO5	2	3	2	1
Avg. PO attained	2.80	2.40	2.00	1.00

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 7	
1	Course Code	ETP4403	
2	Course Title	Clinical Internship Posting-3	
3	Credit	10	
4	Contact Hours (L-T-P)	0-0-20	
5	Course Status	Compulsory	
6	Course Objective	4- To practice the assessment and treatment of patients with different types of emergencies in ambulances, ED and community health centres as Junior Paramedic Interns 5- To practice the protocols and familiarize with operations of emergency ambulances, ED and community health centres	
7	Course Outcome	On completion of course students will be able to: **CO1:** Demonstrate their ability to assess and initiate management of patients in the pre-hospital environment **CO2:** Demonstrate their ability to assess and participate in the management of patients in emergency departments **CO3:** Demonstrate their ability to assess and participate in the management of patients at community health centres **CO4:** Demonstrate their ability to utilize protocols and procedures when practicing in emergency ambulances **CO5:** Demonstrate their ability to utilize protocols and procedures when practicing in emergency Department	
	Course Description	This skill based practical course involves students using the knowledge and skills they have learnt in the previous three years to participate in the management of patients in emergency ambulance services, ED and at community health centres as Junior Paramedic Interns	
9	Outline Syllabus	Practical- Clinical Posting	
	Unit- 1	Assessment and management of patient in pre-hospital care setting	CO1
	Unit- 2	Assessment and management of patient in emergency department	CO2
	Unit- 3	Assessment and management of patient at community health centre	CO3
	Unit- 4	Practicing procedure and protocol in emergency ambulance	CO4
	Unit- 5	Practicing procedure and protocol in emergency department	CO5

Mode of Examination	Practical- Clinical case Scenarios			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	Nancy Caroline's Emergency Care in the Streets- ninth edition			
Reference Book	1. Emergency Scenario Training Guidance Document. UKCRF Network. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.ukcrfnetwork.co.uk/app/uploads/2023/07/Emergency-Scenario-Guidance-V5.pdf 2. Simulation Scenarios. Frimley Health. NHS Foundation Trust. https://www.fhft.nhs.uk/careers/clinical-education/quest-home/simulation-scenarios/			

POs Cos	PO1	PO2	PO3	PO4
CO1	3	3	2	1
CO2	3	3	2	1
CO3	3	3	2	1
CO4	2	2	2	1
CO5	2	2	2	1
Avg. PO attained	2.60	2.60	2.00	1.00

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 7	
1	Course Code	ETP4404	
2	Course Title	Simulation in Emergency Care	
3	Credit	2	
4	Contact Hours (L-T-P)	0-0-4	
5	Course Status	Compulsory	
6	Course Objective	To allow students to experience provision of care to simulated patients with a wide variety of disorders that the students may not encounter with real patients during their clinical postings and thus help complete their experiential learning on clinical scenarios and conduct of procedures	
7	Course Outcome	On completion of course students will be able to: CO1: Demonstrate their ability to care for a wide variety of patients with various emergency conditions in a simulated environment encompassing pre-hospital emergency care CO2: Demonstrate their ability to care for a wide variety of patients with various emergency conditions in a simulated environment encompassing emergency department based care CO3: Demonstrate their ability to care for a wide variety of patients with various emergency conditions in a simulated environment encompassing care to be provided in a community health centre CO4: Demonstrate their ability to care for a wide variety of patients with various emergency conditions in a simulated environment encompassing in ICU CO5: Demonstrate the write up of research project	
	Course Description	This comprehensive skill based practical course will enable students to demonstrate the usage of a wide variety of clinical guidelines and conduct a wide variety of clinical procedures to provide emergency care to simulated patients in a simulated environment	
9	Outline Syllabus	Practical	
	Unit- 1	Skills Lab- Simulation using a wide variety of Emergency Care scenarios of pre hospital emergency care	CO1
	Unit- 2	Skills Lab- Simulation using a wide variety of Emergency Care scenarios of Emergency department based care	CO2
	Unit- 3	Skills Lab- Simulation using a wide variety of Emergency Care scenarios of community health centre based care	CO3

	Unit- 4	Skills Lab- Simulation using a wide variety of Emergency Care scenarios of ICU based care	CO4
	Unit- 5	Write up of research project	CO5

Mode of Examination	Practical- Case Scenarios			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	Nancy Caroline's Emergency Care in the Streets			
Reference Book	Simulation Scenarios. Frimley Health. NHS Foundation Trust. https://www.fhft.nhs.uk/careers/clinical-education/quest-home/simulation-scenarios/			

POs Cos	PO1	PO2	PO3	PO4
CO1	3	3	2	1
CO2	3	3	2	1
CO3	3	3	2	1
CO4	3	3	2	1
CO5	1	1	1	3
Avg. PO attained	2.60	2.60	1.80	1.40

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 07	
1	Course Code	ETP4405	
2	Course Title	Instructor for Life Support Training Courses	
3	Credit	2	
4	Contact Hours (L-T-P)	0-0-4	
5	Course Status	Compulsory	
6	Course Objective	To provide the students with opportunities to polish their knowledge and skills in imparting these knowledge and skills to previously untrained persons.	
7	Course Outcome	At the end of the course, the students will be able to: CO1: Teach Basic Cardiac Life Support course to previously untrained persons CO2: Teach Basic Standard First Aid Provider Course to previously untrained persons CO3: Teach the Basic Trauma Life Support course to previously untrained persons CO4: Conduct Basic Community First Responder Training to previously untrained persons CO5: Conduct assessments in a variety of life support programs	
	Course Description	This practical course provides the students the opportunity to teach a variety of life support provider programs to previously untrained persons.	
9	Outline Syllabus	**Practical**	CO mapping
	Unit- 1	Participate as an Instructor in Basic Cardiac Life Support	CO1
	Unit- 2	Participate as an Instructor in Standard First Aid Provider training	CO2
	Unit- 3	Participate as an Instructor in Basic Trauma Life Support	CO3
	Unit- 4	Participate as an Instructor in Community First Responder Training	CO4
	Unit- 5	Conduct assessments in a variety of life support programs	CO5

Mode of Examination	Viva			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	1. BCLS + AED Instructor Training Handbook. BCLS Instructor Manual			

	2. BTLS Instructor Manual 3. Standard First Aid Instructor Manual 4. Community First Responder Instructor Manual
Reference Book	1. Singapore Resuscitation and First Aid Council Reference Guide for Basic Cardiac Life Support with Automated External Defibrillator (BCLS+AED) Training Centre/Instructor-Training Centre (TC/ITC) 2. Basic Life Support Instructor Essentials Faculty Guide. American Heart Association. 2021. Chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://cpr.heart.org/-/media/CPR2-Files/Course-Materials/Instructor-Essentials/BLS/2021-BLS-Instructor-Essentials/BLS-Instructor-Essentials-Faculty-Guide_ucm_506913.pdf Nancy Caroline's Emergency Care in the Streets 3. International Trauma Life Support for Emergency Care Providers. Roy Alson, John Campbell. 9th Edition. 4. What are the benefits of instructor-led training for training providers and learners? https://www.arlo.co/blog/benefits-of-instructor-led-training

Pos Cos	PO1	PO2	PO3	PO4
CO1	2	2	3	1
CO2	2	2	3	1
CO3	2	2	3	1
CO4	2	2	3	1
CO5	3	1	1	1
Avg. PO attained	2.60	1.80	2.60	1.00

8th Semester

Program Structure Template
School of Allied Health Sciences
Bachelor of Science (Emergency and Trauma Care Technology)
Batch: 2025-29
TERM:8

Sr. No.	Subject Code	Subject	Teaching Load			Credit	Core/Elective/Pre Requisite/Co Requisite	Type of Course CC/AEC CC/SEC/DSE
			L	T	P			
Practical- Internship								
1	ETP4421	Clinical Internship Posting -1	0	0	6	3	Major	CC
2	ETP4422	Clinical Internship Posting -2	0	0	6	3	Major	CC
3	ETP4423	Clinical Internship Posting -3	0	0	4	2	Major	CC
4	ETP4424	Clinical Internship Posting -4	0	0	20	10	Major	CC
5	ETP4425	Instructor for Life Support Training Courses	0	0	4	2	Minor	CC
Total Hours			0	0	40	20		

School: SSAHS		Batch: 2025-29
Program		Bachelor of Science (Emergency and Trauma Care Technology)
Branch :		Semester: 8
1	Course Code	ETP4421
2	Course Title	Clinical Internship Posting -1
3	Credit	3
4	Contact Hours (L-T-P)	0-0-6
5	Course Status	Compulsory
6	Course Objective	3. To practice on haematological diseases assessment (including history taking, physical examination, point-of-care tests and other investigations) and treatment that affect these systems. 4. To practice the students on assessment (including history taking, physical examination, point-of-care tests and other investigations) and treatment of obstetric and gynecological disorders. 5. To practice the students on assessment (including history taking, physical examination, point-of-care tests and other investigations) and treatment of head and neck disorders. 6. To practice the students on assessment (including history taking, physical examination, point-of-care tests and other investigations) and treatment of neurological disorders.
7	Course Outcome	On completion of course students will be able to: **CO1:** Demonstrate their abilities in suggesting likely differential diagnoses and likely approaches to management for haematological emergencies with performance of basic practical procedures under supervision **CO2**: Demonstrate their abilities in suggesting likely differential diagnoses and likely approaches to management for gynecological emergencies with performance of basic practical procedures under supervision **CO3:** Demonstrate their abilities in suggesting likely differential diagnoses and likely approaches to management for obstetric emergencies with performance of basic practical procedures under supervision **CO4:** Demonstrate their abilities in suggesting likely differential diagnoses and likely approaches to management for head and neck disorders with performance of basic practical procedures under supervision. **CO5:** Demonstrate their abilities in suggesting likely differential diagnoses and likely approaches to management for neurological emergencies with performance of basic practical procedures under supervision

	Course Description	This course enables the students to demonstrate their proficiency in the assessment and management of haematological, obstetric, gynecological disorders, head and neck emergencies and neurological emergencies	
9	Outline Syllabus	Clinical Posting	
	Unit-1	Differential diagnosis and management of hematological emergencies and basic practical procedures- Clinical Posting	CO1
	Unit-2	Differential diagnosis and management of gynecological emergencies and basic practical procedures- Clinical Posting in emergency department	CO2
	Unit-3	Differential diagnosis and management of obstetric emergencies and basic practical procedures- Clinical Posting in emergency department	CO3
	Unit-4	Differential diagnosis and management of head and neck disorders and basic practical procedures- Clinical Posting in emergency department	CO4
	Unit-5	Differential diagnosis and management of neurological emergencies and basic practical procedures- Clinical Posting in emergency department	CO5

Mode of Examination	Practical- Clinical Case Scenarios			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	Nancy Caroline's Emergency Care in the Streets-ninth edition			
Reference Book	4. Adult Cardiac Arrest Case Flow Sheet. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://cdn-links.lww.com/permalink/sih/a/sih_2023_09_15_rodgers_sih-d-23-00080_sdc1.pdf 5. Emergency Scenario Training Guidance Document. UKCRF Network. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.ukcrfnetwork.co.uk/app/uploads/2023/07/Emergency-Scenario-Guidance-V5.pdf 3- Simulation Scenarios. Frimley Health. NHS Foundation Trust. https://www.fhft.nhs.uk/careers/clinical-education/quest-home/simulation-scenarios/			

POs Cos	PO1	PO2	PO3	PO4
CO1	3	3	2	1
CO2	3	3	2	1
CO3	3	3	2	1
CO4	3	3	2	1
CO5	3	3	2	1
Avg. PO attained	3.00	3.00	2.00	1.00

School: SSAHS		Batch: 2025-29
Program		Bachelor of Science (Emergency and Trauma Care Technology)
Branch :		Semester: 8
1	Course Code	ETP4422
2	Course Title	Clinical Internship Posting -2
3	Credit	3
4	Contact Hours (L-T-P)	0-0-6
5	Course Status	Compulsory
6	Course Objective	1- To practice the students on assessment (including history taking, physical examination, point-of-care tests and other investigations) and treatment of environmental and toxicological emergencies 2- To practice the students on assessment (including history taking, physical examination, point-of-care tests and other investigations) and treatment of immunological and dermatological emergencies
7	Course Outcome	At the end of the course, the students will be able to: CO1: Demonstrate their abilities in suggesting likely differential diagnoses and likely approaches to management of environmental emergencies with performance of basic practical procedures under supervision CO2: Demonstrate abilities in suggesting likely differential diagnoses and likely approaches to management of toxicological emergencies with performance of basic practical procedures under supervision CO3: Demonstrate their abilities in suggesting likely differential diagnoses and likely approaches to management for immunological emergencies with performance of basic practical procedures under supervision CO4: Demonstrate their abilities in suggesting likely differential diagnoses and likely approaches to management for dermatological emergencies with performance of basic practical procedures under supervision CO5: Demonstrate their abilities in suggesting likely differential diagnoses and likely approaches to management for multi-system emergencies emergencies with performance of basic practical procedures under supervision
	Course Description	This course enables the student to demonstrate their proficiency in the assessment and management of environmental, toxicological, immunological and dermatological emergencies with performance of practical procedures under supervision.
9	Outline Syllabus	Practical-Clinical Posting

	Unit- 1	Differential diagnosis and management of environmental emergencies and basic practical procedures- Clinical Posting in emergency department	CO1
	Unit- 2	Differential diagnosis and management of toxicological emergencies and basic practical procedures- Clinical Posting in emergency department	CO2
	Unit- 3	Differential diagnosis and management of immunological emergencies and basic practical procedures- Clinical Posting in emergency department	CO3
	Unit- 4	Differential diagnosis and management of dermatological emergencies and basic practical procedures- Clinical Posting in emergency department	CO4
	Unit-5	Differential diagnosis and management of multi-system emergencies and basic practical procedures- Clinical Posting in emergency department	CO5

Mode of Examination	Practical- Clinical Case Scenarios			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	Nancy Caroline's Emergency Care in the Streets-ninth edition			
Reference Book	1. Emergency Scenario Training Guidance Document. UKCRF Network. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.ukcrfnetwork.co.uk/app/uploads/2023/07/Emergency-Scenario-Guidance-V5.pdf 2. Simulation Scenarios. Frimley Health. NHS Foundation Trust. https://www.fhft.nhs.uk/careers/clinical-education/quest-home/simulation-scenarios/			

POs Cos	PO1	PO2	PO3	PO4
CO1	3	3	2	1
CO2	3	3	2	1
CO3	3	3	2	1
CO4	3	3	2	1
CO5	3	3	2	1
Avg. PO attained	3.00	3.00	2.00	1.00

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 8	
1	Course Code	ETP4423	
2	Course Title	Clinical Internship Posting -3	
3	Credit	2	
4	Contact Hours (L-T-P)	0-0-4	
5	Course Status	Compulsory	
6	Course Objectives	1- To practice the students on assessment (including history taking, physical examination, point-of-care tests and other investigations) and treatment of psychological emergencies 2- To practice the students on assessment (including history taking, physical examination, point-of-care tests and other investigations) and treatment of pediatric and geriatric emergencies	
7	Course Outcomes	At the end of course students will be able to: CO1: Demonstrate their abilities in suggesting likely differential diagnoses and likely approaches to management psychological emergencies with performance of basic practical procedures under supervision, such as restraint techniques. CO2: Demonstrate abilities in suggesting likely differential diagnoses of paediatric emergencies CO3: Demonstrate approaches to management of paediatric emergencies with performance of basic practical procedures under supervision. CO4: Demonstrate abilities in suggesting likely differential diagnoses for geriatric emergencies CO5: Demonstrate abilities of geriatric emergencies with performance of basic practical procedures under supervision	
8	Course Description	This course enables the student to demonstrate their proficiency in the assessment and management of psychological disorders, pediatrics and geriatric emergencies	
9	Outline Syllabus	Practical- Clinical Posting	
	Unit- 1	Differential diagnosis and management of psychological emergencies and basic practical procedures- Clinical Posting in emergency department	CO1
	Unit- 2	Differential diagnosis of pediatric emergencies - Clinical Posting in emergency department	CO2
	Unit- 3	Management of Pediatric emergencies with basic practical procedures- Clinical Posting in emergency department	CO3

	Unit- 4	Differential diagnosis of Geriatric emergencies - Clinical Posting in emergency department	CO4
	Unit- 5	Management of Geriatric emergencies with basic practical procedures- Clinical Posting in emergency department	CO5

Mode of Examination	Practical- Clinical Case Scenarios			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	Nancy Caroline's Emergency Care in the Street- ninth edition			
Reference Book	1. Emergency Scenario Training Guidance Document. UKCRF Network. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.ukcrfnetwork.co.uk/app/uploads/2023/07/Emergency-Scenario-Guidance-V5.pdf 2. Simulation Scenarios. Frimley Health. NHS Foundation Trust. https://www.fhft.nhs.uk/careers/clinical-education/quest-home/simulation-scenarios/			

POs Cos	PO1	PO2	PO3	PO4
CO1	3	3	1	1
CO2	3	2	1	1
CO3	2	2	1	1
CO4	3	2	1	1
CO5	2	2	1	1
Avg. PO attained	2.60	2.20	1.00	1.00

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 8	
1	Course Code	ETP4424	
2	Course Title	Clinical Internship Posting -4	
3	Credit	10	
4	Contact Hours (L-T-P)	0-0-20	
5	Course Status	Compulsory	
6	Course Objective	To practice the assessment and treatment of patients with different types of emergencies in ambulances, ED and community health centres as Senior Paramedic Interns To practice the protocols and familiarize with operations of emergency ambulances, ED and community health centres	
7	Course Outcome	On completion of course students will be able to: **CO1:** Demonstrate their ability to assess and initiate management of patients in the pre-hospital environment **CO2:** Demonstrate their ability to assess and participate in the management of patients in emergency departments **CO3:** Demonstrate their ability to assess and participate in the management of patients at community health centres **CO4:** Demonstrate their ability to utilize protocols and procedures when practicing in emergency ambulances **CO5:** Demonstrate their ability to utilize protocols and procedures when practicing in emergency Department	
	Course Description	This skill based practical course involves students using the knowledge and skills they have learnt in the previous three years to participate in the management of patients in emergency ambulance services, ED and at community health centres as Senior Paramedic Interns	
9	Outline Syllabus	Practical- Clinical Posting	
	Unit- 1	Assessment and management of patient in pre-hospital care setting	CO1
	Unit- 2	Assessment and management of patient in emergency department	CO2
	Unit- 3	Assessment and management of patient at community health centre	CO3
	Unit- 4	Practicing procedure and protocol in emergency ambulance	CO4
	Unit- 5	Practicing procedure and protocol in emergency department	CO5

Mode of Examination	Practical- Clinical Case Scenarios			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	Nancy Caroline's Emergency Care in the Streets- ninth edition			
Reference Book	Simulation Scenarios. Frimley Health. NHS Foundation Trust. https://www.fhft.nhs.uk/careers/clinical-education/quest-home/simulation-scenarios/			

POs Cos	PO1	PO2	PO3	PO4
CO1	3	3	2	1
CO2	3	3	2	1
CO3	3	3	2	1
CO4	2	2	2	1
CO5	2	2	2	1
Avg. PO attained	3.00	3.00	2.00	1.00

School: SSAHS		Batch: 2025-29	
Program		Bachelor of Science (Emergency and Trauma Care Technology)	
Branch :		Semester: 08	
1	Course Code	ETP4425	
2	Course Title	Instructor for Life Support Training Courses	
3	Credit	2	
4	Contact Hours (L-T-P)	0-0-4	
5	Course Status	Compulsory	
6	Course Objective	To provide the students with opportunities to polish their knowledge and skills in imparting these knowledge and skills to previously untrained persons.	
7	Course Outcome	At the end of the course, the students will be able to: CO1: Teach Basic Cardiac Life Support course to previously untrained persons CO2: Teach Basic Standard First Aid Provider Course to previously untrained persons CO3: Teach the Basic Trauma Life Support course to previously untrained persons CO4: Conduct Basic Community First Responder Training to previously untrained persons CO5: Be proficient at conducting assessments of the various life support programs	
	Course Description	This practical course provides the students the opportunity to teach a variety of life support provider programs to previously untrained persons.	
9	Outline Syllabus	**Practical**	CO mapping
	Unit- 1	Participate as an Instructor in Basic Cardiac Life Support	CO1
	Unit- 2	Participate as an Instructor in Standard First Aid Provider training	CO2
	Unit- 3	Participate as an Instructor in Basic Trauma Life Support	CO3
	Unit- 4	Participate as an Instructor in Community First Responder Training	CO4
	Unit- 5	Conduct Assessments of Providers during Life Support Training	CO5

Mode of Examination	Viva			
Weightage Distribution	CA	MTE	ETE	
	20	20	60	
Text Book	**5.** BCLS + AED Instructor Training Handbook. BCLS Instructor Manual **6.** BTLS Instructor Manual **7.** Standard First Aid Instructor Manual **8.** Community First Responder Instructor Manual			
Reference Book	1. BCLS Instructor Manual 2. BTLS Instructor Manual 3. Standard First Aid Instructor Manual 4. Community First Responder Instructor Manual			

POs Cos	PO1	PO2	PO3	PO4
CO1	2	2	3	1
CO2	2	2	3	1
CO3	2	2	3	1
CO4	2	2	3	1
CO5	2	2	3	1
Avg. PO attained	2.00	2.00	3.00	1.00