



YENEPOYA

(DEEMED TO BE UNIVERSITY)

Recognized under Sec 3(A) of the UGC Act 1956

Accredited by NAAC with 'A' Grade

**YENEPOYA INSTITUTE OF ALLIED
HEALTH SCIENCES**

PROGRAM OUTCOMES AND COURSE OUTCOMES

UNDERGRADUATE PROGRAM

BACHELOR OF SCIENCE

PERFUSION TECHNOLOGY

ATTESTED

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PROGRAM OUTCOMES
UNDERGRADUATE PROGRAM
BACHELOR OF SCIENCE
PERFUSION TECHNOLOGY

(K-Knowledge, S-Skill, A- Attitude)

- PO 1 Practice the art and science of "Perfusion" efficiently and effectively, backed by scientific knowledge and skill. (K,S,A)
- PO 2 A comprehensive, patient-centered educational program designed to prepare the graduate for the dynamic practice of Cardiopulmonary Bypass. (K, S)
- PO 3 Leading the profession by educating the best possible health care providers, promoting lifetime learning and fostering a personal commitment to service. (K,S)
- PO 4 Monitor the blood flow and other vital signs during open heart surgery and are also responsible for administering intravenous fluid, blood products and anesthetic drugs. (K.S,A)
- PO 5 Developing a strong knowledge base in cardiac anatomy, physiology and pathophysiology as well as pharmacology, fetal and neonatal cardiac development and perfusion science.(K)
- PO 6 To Understand both circulatory and respiratory systems and be able to operate complex equipment's. (K,S,A)
- PO 7 To know all about the preparation, operation and maintenance of heart lung machine, ventricular assist device, artificial heart, and other sophisticated instruments and equipment's as directed by Surgeons, healthcare physicians and anesthetics. (K,S,A)
- PO 8 Measures various blood and other parameters to identify appropriate mechanical, pharmacological and thermal manipulation to maintain tissue visibility. (K,S)
- PO 9 Experts of other life support devices and intra-aortic balloon pump. (S,A)
- PO 10 Capable of handling stressful situation, pay great attention to detail, communicate effectively, and be willing to stay abreast of new developments in the profession. (K,A)

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COURSE OUTCOMES
UNDERGRADUATE PROGRAM
BACHELOR OF SCIENCE
PERFUSION TECHNOLOGY

SEMESTER I

	CO	Description
Anatomy	CO 1	Demonstrate the structure of various organs in the human body And correlate the structure with the functions to know How both structure and function are modified by disease.
	CO 2	Identify and locate all the structures of the body.
	CO 3	Identify the microscopic structures of various tissues and organs in the human body and correlate the structure with the functions for understanding the altered state in various disease processes
	CO 4	Understand the basic principles of embryology including major variations, abnormalities and the congenital anomalies involved in development of the organs and systems
Physiology		CO Description
	CO 1	To broadly understand the physiological structure of each organ System and its physiological functions
	CO 2	To understand broadly the clinical abnormalities of organs and its clinical physiological implications
Biochemistry		CO Description
	CO 1	Various biomolecules in our body and their classification
	CO 2	Sample collection for various tests performed in laboratory
	CO 3	Preparation of dilutions of chemicals and body fluids.
	CO 4	Various terms used in quality control
	CO 5	Biomedical wastes management

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CO 6 Significance of various special investigations

CO Description

**Anatomy
& Physiology
Cardiac**

- CO 1 To State The Position Of The Heart, The Size And Shape.
- CO 2 To Identify The Chambers Of The Heart And The Circulatory Systems
- CO 3 To State The Anatomy Of Heart Valve And The Coronary Arteries
- CO 4 To State The Properties Of Cardiac Muscle Tissue
- CO 5 To Identify The Conduction System And The Cardiac Cycle

CO Description

**English And
Communication**

- CO 1 Apply the Concepts and Principles of English Language use in Professional Development such as Pronunciation, Vocabulary, grammar Paraphrasing, Voice Modulation, Spelling pause and silence
- CO 2 Apply Lsrw (Listening, Speaking, Reading and Writing) Skill in Combination to Learn, Teach, Educate and Share Information, Ideas and Results.

CO Description

**Constitution
of India**

- CO 1 This course is to keep the students abreast with the knowledge of the Constitution of India.
- CO 2 To make the students understand the importance of human rights as citizens of India

SEMESTER II

CO Description

General

- CO 1 Understand how body reacts to cellular responses and injuries.

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Pathology

- CO 2 Have a basic knowledge about various laboratory tests and its application on various disorders
- CO 3 Define the medical terms, define and classify disease and understand the concepts of the disease

CO Description

- Microbiology** CO 1 Understand how the bacteria grow and how sterilization & disinfection works
- CO 2 Have a basic knowledge about Immunization schedules and bacterial infections.
- CO 3 Define terms in virology, mycology and parasitology.

CO Description

- Introduction to Operation** CO 1 To State the Equipment's in Operation Theatre and Intensive Care Units
- CO 2 To Know about the Patient Care in Recovery Room and OT
- Perfusion Technology** CO 3 To know about the sterility and waste management in OT & ICU.

CO Description

- Environmental Studies** CO 1 Students Will Be Able To Learn About Environment, Factor affecting it, environmental ethics and its protection
- CO 2 Students will be able to describe a system, and component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, Sustainability
- CO 3 Students will be able to critically analyze technical subject matter (written or oral) for scientific merit apply learned environmental knowledge and understanding to solve technical/research problems in new contexts

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CO Description

- Medical Ethics**
- CO 1 Increasing the awareness and knowledge of students of the value dimensions of interactions with the patients, colleagues, relations and public.
 - CO 2 Fostering the development of skills of analysis, decision making and judgment.
 - CO 3 Making the students aware of the need to respect the rights of the patient.
 - CO 4 Duties and responsibilities of the technologists

CO Description

- Sociology**
- CO 1 To understand the sociological definition, investigation, social factors, etc
 - CO 2 Knowledge regarding sociology concepts and principle of social process

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