



# Galgotias University

## Galgotias University Vision

- To be known globally for value-based education, research, creativity and innovation"

## Galgotias University Mission

- Establish state-of-the-art facilities for world class education and research.
- Collaborate with industry and society to align the curriculum,
- Involve in societal outreach programs to identify concerns and provide sustainable ethical solutions.
- Encourage life-long learning and team-based problem solving through an enabling environment.



## School of Medical & Allied Sciences (SMAS)

### School Vision

To be known globally as a Centre of excellence for medical & allied science education, innovation, interdisciplinary research and practice for enhancing health.

### School Mission

**M1-** Establish state of art facilities for excellent medical & allied education and interdisciplinary research

**M2-** Collaborate with health care sector professionals to align curriculum and develop strong foundation for fundamental & practice health

**M3-** Involve students in community health programmes to develop lifelong learning and communication skills



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**Galgotias University**  
**School of Medical & Allied Sciences (SMAS)**

**Department of Paramedical and Allied Health Sciences**

**Programme: BSc. Cardiovascular Technology (CVT)**

**Vision**

To be known worldwide for education, innovation, interdisciplinary research and practice in the field of Cardiovascular Technology.

**Mission**

M1: Collaborate with Cardiology and Cardiothoracic department in the hospitals of national repute to align curriculum.

M2: Involve students in community health programmes to become an important resource in Cardiovascular health care.

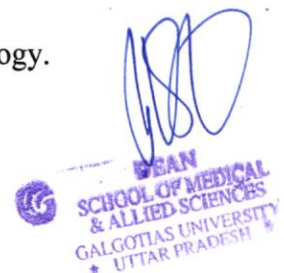
M3: To be an important resource in Primary, Secondary and Tertiary chain of Cardiovascular Health care.

**Program Educational Objectives**

PEO1: Work as cardiovascular technicians under cardiology and cardiothoracic experts in mainstream of cardiac hospitals.

PEO2: Pursue higher studies in various specialization in cardiovascular technology.

PEO3: Engage in experiential entrepreneurship opportunities.



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## Program Outcomes

### PO1: Thinking Abilities

Utilize the principles of scientific enquiry, thinking analytically, clearly and critically while solving problems and making decisions during daily practice. Identify correct procedural errors, identify instrument malfunctions and seek proper supervisory assistance and verify the accuracy of laboratory results obtained.

### PO2: Planning Abilities

Demonstrate effective planning abilities including time management, resource management, delegation skills and organizational skills. Develop and implement plans and organize work to meet deadlines.

### PO3: Communication

Communicate effectively with society at large, develop professional conduct and interpersonal communication skills with patients, laboratory personnel, other health care professionals, and with the public.

### PO4: Cardiovascular Technology Knowledge

Apply reasoning informed by the contextual knowledge to assess societal, health, safety and legal issues and the consequent responsibilities relevant to the professional cardiovascular practice.

### PO5: Cardiovascular Technology Ethics


Honour personal values and apply ethical principles in professional and social contexts. Demonstrate behaviour that recognizes cultural and personal variability values, communication and lifestyles. Perform within the guidelines of the code of ethics established by state and local regulatory groups. Use ethical frame works, apply ethical principles while making decisions and take responsibility for the outcomes associated with the decisions.

### PO6: Environment and sustainability

Understand the impact of the professional cardiovascular technology solutions in environmental contexts and demonstrate the knowledge of need for sustainable development.

### PO7: Life-long learning

Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change. Self-access and use feedback effectively from others to identify learning needs and to satisfy these needs on an ongoing basis upgrading skills in cardiovascular technology.

  
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Name of The Course	Cardio Pathophysiology-II			
Course Code	BCVT3001			
Prerequisite				
Corequisite				
Antirequisite				
	L	T	P	C
	3	0	0	3

Course Objectives: The basic objective of this course is to get familiar with pathophysiology of human system.

#### Course Outcomes

CO1	To analyze and interpret pericardial diseases
CO2	To analyze and interpret electrical disturbances of the heart
CO3	To understand Pulmonary hypertension
CO4	To analyze and interpret Peripheral Vascular Disease
CO5	To analyze and interpret Congenital heart disease
CO6	To improve and maximize the knowledge of recent advancement in disease and its treatment

Unit-1	8 hours
Pericardial Diseases: Pericardial effusion, Constrictive pericarditis, Cardiac tamponade	
Unit-2	8 hours
Electrical disturbances of the heart: Sinus node dysfunction, Arrhythmias and conduction Disturbances, Treatment of arrhythmias, pharmacological, radiofrequency ablation and surgery	
Unit-3	8 hours
Pulmonary hypertension: Primary pulmonary hypertension, Pulmonary thrombo-embolism	

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Unit-4	8 hours
Peripheral Vascular Disease: Atherosclerotic peripheral vascular disease, Aortic aneurysms, Aortic dissection, Takayasu arteritis	
Unit-5	8 hours
Congenital heart disease:	
(a) Acyanotic heart disease, Atrialseptal defect, Ventricular septal defect, Patent ductusarteriosus, Congenital valvular disease, Coarctation of aorta	
(b) Cyanotic congenital heart disease, Tetralogy of Fallot, Double outlet right ventricle, Pulmonary atresia, Transposition of great arteries, Truncusarteriosus, Total anomalous pulmonary venous connection	
Unit 6:	8 hours
Recent advancement: Coronavirus, COPD, Recent advancement on pathophysiology, diagnostic and therapeutic insights in cardiac dysfunction induced by antineoplastic drug	

#### Continuous Assessment Pattern

Internal Assessment (IA)	Mid Term Test (MTE)	End Term Test (ETE)	Total Marks
10	20	70	100

  
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