ALLIED HEALTH SCIENCES

Programme Name-BOTT

VISION

- To impart quality education through outcomes-based teaching & Hands-On clinical practice.

- To encourage innovation & interdisciplinary collaboration in solving real world challenges.

- To produce skilled, ethical, ALLIED HEALTH Professionals, who contribute holistic Health Care & enhancement of community health at local & global level.

MISSION

- To educate & professionals who contribute to the promotion of health prevention of disease & delivery of high-quality patient care.

- Developing next generation of Allied Health leaders through membership, education & innovation.

- To encourage creative solution and best practice in patient care.

PROGRAMME EDUCATIONAL OBJECTIVES:

PEO1: Professional Competence and Employability
Graduates will be competent operation theatre technologists capable of performing effectively in hospitals, surgical centers, and research settings, contributing to quality surgical care and patient management.
PEO2: Leadership, Research, and Innovation
Graduates will demonstrate leadership qualities, engage in evidence-based practice, and contribute to innovations in surgical technology, patient safety, and healthcare management through research and professional growth.

PROGRAM SPECIFIC OUTCOME (PSOs)

PSO1: Surgical Equipment Management
Students will be able to identify, operate, maintain, and troubleshoot various operation theatre instruments and advanced surgical equipment, ensuring their proper sterilization, calibration, and functionality for safe surgical procedures.
PSO2: Perioperative Patient Care and Safety
Students will be able to assist in preoperative, intraoperative, and postoperative patient care by applying aseptic techniques, infection control measures, and emergency response protocols to enhance patient safety and surgical efficiency.

PROGRAMME OUTCOMES:

COURSE: BOTT
 At the end of the program students should be able to:
PO1. Disciplinary Knowledge: Demonstrate comprehensive theoretical and practical understanding of the core and allied areas with the ability to apply this knowledge effectively in surgical and clinical environments.

PO2. Communication Skills: Exhibit proficiency in verbal and written communication for effective interaction with healthcare professionals, patients, and multidisciplinary teams, maintaining clarity, accuracy, and professionalism.

PO3. Problem Solving and Analytical Reasoning: Apply critical and analytical thinking to identify, interpret, and resolve issues through evidence-based and situation-specific approaches.

PO4. Teamwork and Collaboration:Work efficiently and respectfully within multidisciplinary healthcare teams, fostering cooperation and coordination to achieve safe and effective surgical outcomes.

PO5. Self-Directed Learning:Demonstrate initiative, responsibility, and independence in professional practice, utilizing appropriate resources and adapting to advancements in surgical technologies and techniques.

PO6. Ethical and Professional Conduct: Uphold ethical principles, professional standards, and legal frameworks while maintaining integrity, confidentiality, and accountability in all aspects of healthcare delivery.

PO7. Lifelong Learning:Commit to continuous learning and professional development to remain competent, adaptable, and responsive to ongoing advancements in medical science and healthcare practices.

PO8. Technological Competence and Innovation: Demonstrate proficiency in utilizing modern surgical instruments, digital technologies, and information systems to enhance the precision, safety, and efficiency of operation theatre practices, while embracing innovation and adaptability to emerging healthcare technologies.

Credit Definition

Type	Duration (in hours)	Credit
Lecture (L)	1	1
Tutorial (T)	0	0
Practical (P)	2	1

Total Credit Distribution for the Entire Programme

Semester	Credit						
	CC	DSE	GE	AECC	SEC	USC	Total/Sem
First	18			2			20
Second	18		4	2	1		25
Third	12	6	4	2	1	2	27
Fourth	12	6	4	2	1	2	27
Fifth	18	6			1	2	27
Sixth	18	6				2	26
Total Credit/ Course	96	24	12	8	4	8	
Total Credit							152

Category Definition

Definition of Category/Type	Abbreviation
Core Courses;	CC
General Elective	GE
Ability Enhancement Compulsory Course	AECC
Skill Enhancement Courses;	SEC
Discipline Specific Elective	DSE
University specified course	USC
Skill Enhancement Courses	**SEC**

FIRST YEAR

SEMESTER-I &II

Category	Course Name	Credit	Teaching Scheme		
			L	T	P
Semester –I					
CC – 1	Basic & Applied Human Anatomy	4	4	0	0
	Basic & Applied Human Anatomy Lab	2	0	0	4
CC – 2	Basic & Applied Human Physiology	4	4	0	0
	Basic & Applied Human Physiology lab	2	0	0	4
CC-3	Basic Instrument & Equipment	4	4	0	0
	Basic Instrument & Equipment lab	2	0	0	4
AECC – 1	Communicative English – I	2	2	0	0
Total Credit = 20			Teaching Hour = 24		
Semester –II					
CC – 4	Basic Biochemistry & Microbiology	4	4	0	0
	Basic Biochemistry & Microbiology Lab	2	0	0	4
CC – 5	Basic Nursing	4	4	0	0
	Basic Nursing Lab	2	2	0	2
CC – 6	Basic surgery	4	4	0	0
	Basic surgery Lab	2	0	0	4
GE – 1	General Elective - I	4	4	0	0
AECC – 2	Communicative English – II	2	2	0	0
SEC – 1	Mentored Seminar – I	1	1	0	0
Total Credit = 25			Teaching Hour = 31		

SECOND YEAR

SEMESTER-III & IV

Category	Course Name	Credit	Teaching Scheme		
			L	T	P
Semester –III					
CC – 7	Basic and Advance Life support	4	4	0	0
	Basic and Advance Life support Lab	2	0	0	4
CC – 8	Basic Anaesthesia	4	4	0	0
	Basic Anaesthesia Lab	2	0	0	4
DSE – 1	Clinical Pathology	4	4	0	0
	Clinical Pathology Lab	2	0	0	4
GE – 2	General Elective - II	4	4	0	0
AECC – 3	Fundamentals of Computer Science	2	2	0	0
SEC – 2	Mentored Seminar – II	1	1	0	0
USC – 1	Environmental Science-I	2	2	0	0
Total Credit = 27			Teaching Hour = 33		
Semester – IV					
CC – 9	Advanced Anaesthesia	4	4	0	0
	Advanced Anaesthesia Lab	2	0	0	4
CC – 10	Basic surgery –II	4	4	0	0
	Basic surgery -II Lab	2	0	0	4
DSE – 2	Clinical pharmacology	4	4	0	0
	Clinical pharmacology lab	2	0	0	4
GE – 3	General Elective -III	4	4	0	0
AECC – 4	Medical Law & Ethics	2	2	0	0
SEC – 3	Mentored Seminar – III	1	1	0	0
USC – 2	Environmental Science-II	2	2	0	0
Total Credit = 27			Teaching Hour = 33		

THIRD YEAR

SEMESTER-V &VI

Category	Course Name	Credit	Teaching Scheme		
			L	T	P
Semester – V					
CC – 11	Special surgical procedure –I	4	4	0	0
	Special surgical procedure –I lab	2	0	0	4
CC – 12	OT Management	4	4	0	0
	OT Management – Lab	2	0	0	4
CC – 13	CSSD-1	4	4	0	0
	CSSD-1 LAB	2	0	0	4
DSE – 3	Lab Science -1	4	4	0	0
	Lab Science -1 LAB	2	0	0	4
SEC – 4	Mentored Seminar – IV	1	1	0	0
USC – 3	Health Statistics	2	2	0	0
Total Credit = 27			Teaching Hour = 33		
Semester – VI					
CC – 14	Special surgical procedure –II	4	4	0	0
	Special surgical procedure –II lab	2	0	0	4
CC – 15	CSSD II	4	4	0	0
	CSSD II– Lab	2	0	0	4
CC – 16	Lab Science II & Imaging Study	4	4	0	0
	Lab Science II & Imaging Study – Lab	2	0	0	4
DSE-4	Project	6	0	0	12
USC-4	Research Methodology	2	2	0	0
Total Credit = 26			Teaching Hour 38		

COURSE NAME: BOTT
SEMESTER-I

PAPER: Basic and Applied Human Anatomy

Program Outcome

PO1. Disciplinary Knowledge:

Demonstrate comprehensive theoretical and practical understanding of the core and allied areas with the ability to apply this knowledge effectively in surgical and clinical environments.

PO2. Communication Skills:

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PO3. Problem Solving and Analytical Reasoning:

Apply critical and analytical thinking to identify, interpret, and resolve issues through evidence-based and situation-specific approaches.

PO4. Teamwork and Collaboration:

Work efficiently and respectfully within multidisciplinary healthcare teams, fostering cooperation and coordination to achieve safe and effective surgical outcomes.

PO5. Self-Directed Learning:

Demonstrate initiative, responsibility, and independence in professional practice, utilizing appropriate resources and adapting to advancements in surgical technologies and techniques.

PO6. Ethical and Professional Conduct:

Uphold ethical principles, professional standards, and legal frameworks while maintaining integrity, confidentiality, and accountability in all aspects of healthcare delivery.

PO7. Lifelong Learning:

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PO8.Technological Competence and Innovation:

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Program Specific Outcomes (PSO)

PSO1: Surgical Equipment Management

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PSO2: Perioperative Patient Care and Safety

Students will be able to assist in preoperative, intraoperative, and postoperative patient care by applying aseptic techniques, infection control measures, and emergency response protocols to enhance patient safety and surgical efficiency.

Course outcome

CO1.Students will be able to outline position, specified function of skeletal system and respiratory system.

CO2 Students will be able to Demonstrate the parts and functions of Cardiovascular system of human body .

CO3.Students will be able to think critically to differentiate the anatomical position and function of Excretory system of human body.
CO4.Students will be able to Monitoring the functions of gastro-intestinal system with position.
CO5.Students will be able to Design the pathways and correlation of Nervous system with other systems including cardiovascular system, excretory system.

CO PO and PSO mapping

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2
CO1	3	2	2	1	2	2	3	2	3	3
CO2	3	2	3	2	2	2	2	2	3	3
CO3	3	2	2	2	2	2	3	1	2	3
CO4	3	2	3	2	2	2	3	3	3	3
CO5	3	2	3	3	3	2	3	3	3	3
TOTAL	15	10	13	10	11	10	14	11	14	15

PAPER: BASIC INSTRUMENT & EQUIPMENT

Course Outcomes:

CO1:   Students will be able to identify the parts and functions of basic clinical equipment.
CO2:   Students will be able to demonstrate the use of basic diagnostic tools.
CO3:   Students will be able to compare various patient care accessories used in clinical practice.
CO4:   Students will be able to differentiate between types of surgical instruments.
CO5:   Students will be able to evaluate the handling strategies of surgical and emergency instruments in clinical settings.

Program Outcomes (POs)
At the end of the program, students should be able to:PO1. Disciplinary Knowledge:
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PO2. Communication Skills:
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Program Educational Objectives (PEO)

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PEO2: Leadership, Research, and Innovation Graduates will demonstrate leadership qualities, engage in evidence-based practice, and contribute to innovations in surgical technology, patient safety, and healthcare management through research and professional growth.

CO, PO and PSO mapping

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2
CO1	3	2	1	0	0	2	0	2	1	3
CO2	3	2	3	0	2	0	3	2	3	3
CO3	3	0	3	0	2	0	3	1	3	3
CO4	3	2	3	2	2	2	3	3	3	3
CO5	3	0	3	0	0	0	2	2	3	3
TOTAL	15	6	13	2	6	4	11	10	13	15

PAPER: BASIC & APPLIED HUMAN PHYSIOLOGY

Course Outcomes:

CO1: Students will be able to classify the various blood components and their transfusion according to the clinical physiology.
CO2: Students will be able to demonstrate the physiology of cardio-vascular system, pulmonary system, and renal system, and its abnormalities.
CO3: Students will be able to detect hormonal imbalance.
CO4: Students will be able to monitor cardio-pulmonary parameters and management.
CO5: Students will be able to check the reflexes of neuro-muscular system.

PROGRAM OUTCOMES (PO)

B.Sc. in Operation Theatre Technology
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Program Specific Outcomes (PSO)

PSO1: Surgical Equipment Management

Bloom's Taxonomy Verbs:

Remember (BT1)	Understand (BT2)	Apply (BT3)	Analyze (BT4)	Evaluate (BT5)	Create (BT6)
Cite	Add	Acquire	Analyze	Appraise	Abstract
Define	Approximate	Adapt	Audit	Assess	Animate
Describe	Articulate	Allocate	Blueprint	Compare	Arrange
Draw	Associate	Alphabetize	Breadboard	Conclude	Assemble
Enumerate	Characterize	Apply	Break down	Contrast	Budget
Identify	Clarify	Ascertain	Characterize	Counsel	Categorize
Index	Classify	Assign	Classify	Criticize	Code
Indicate	Compare	Attain	Compare	Critique	Combine
Label	Compute	Avoid	Confirm	Defend	Compile
List	Contrast	Back up	Contrast	Determine	Compose
Match	Convert	Calculate	Correlate	Discriminate	Construct
Meet	Defend	Capture	Detect	Estimate	Cope
Name	Describe	Change	Diagnose	Evaluate	Correspond
Outline	Detail	Classify	Diagram	Explain	Create
Point	Differentiate	Complete	Differentiate	Grade	Cultivate
Quote	Discuss	Compute	Discriminate	Hire	Debug
Read	Distinguish	Construct	Dissect	Interpret	Depict
Recall	Elaborate	Customize	Distinguish	Judge	Design
Recite	Estimate	Demonstrate	Document	Justify	Develop
Recognize	Example	Depreciate	Ensure	Measure	Devise
Record	Explain	Derive	Examine	Predict	Dictate
Repeat	Express	Determine	Explain	Prescribe	Enhance
Reproduce	Extend	Diminish	Explore	Rank	Explain
Review	Extrapolate	Discover	Figure out	Rate	Facilitate
Select	Factor	Draw	File	Recommend	Format
State	Generalize	Employ	Group	Release	Formulate
Study	Give	Examine	Identify	Select	Generalize
Tabulate	Infer	Exercise	Illustrate	Summarize	Generate
Trace	Interact	Explore	Infer	Support	Handle
Write	Interpolate	Expose	Interrupt	Test	Import
	Interpret	Express	Inventory	Validate	Improve
	Observe	Factor	Investigate	Verify	Incorporate
	Paraphrase	Figure	Layout		Integrate
	Picture graphically	Graph	Manage		Interface
	Predict	Handle	Maximize		Join
	Review	Illustrate	Minimize		Lecture
	Rewrite	Interconvert	Optimize		Model
	Subtract	Investigate	Order		Modify
	Summarize	Manipulate	Outline		Network
	Translate	Modify	Point out		Organize
	Visualize	Operate	Prioritize		Outline
		Personalize	Proofread		Overhaul
		Plot	Query		Plan
		Practice	Relate		Portray
		Predict	Select		Prepare
		Prepare	Separate		Prescribe
		Price	Subdivide		Produce
		Process	Train		Program
		Produce	Transform		Rearrange
		Project			Reconstruct

		Provide			Relate
		Relate			Reorganize
		Round off			Revise
		Sequence			Rewrite
		Show			Specify
		Simulate			Summarize
		Sketch			
		Solve			
		Subscribe			
		Tabulate			
		Transcribe			
		Translate			
		Use			