

Babu Banarasi Das University, Lucknow

School of Allied Health Sciences

School Code: 13

University Branch Code: 18

Evaluation Scheme (w.e.f. – 2025-26)

BACHELOR IN ANAESTHESIA AND OPERATION THEATRE TECHNOLOGY

SETS

	COURSE CODE	COURSE NAME	COURSE TYPE	Periods			Total Credits	Evaluation Scheme		
				L	T	P		CIA	ESE	Subject Total
SET 1	BOT 101T	Operation Theatre Technology Basics	DSC	3	1	0	4	40	60	100
	BOT 102T	Vital Signs and Management of Medical Emergencies	DSC	2	0	0	2	40	60	100
	BOT 103T	Healthcare Delivery System	MD	2	1	0	3	40	60	100
	BOT 104T	Digital Literacy	AEC	2	0	0	2	60	40	100
	BOT 105T	Communicative English	SEC	2	1	0	3	60	40	100
	BOT 106T	Environment and Ecological Sustainability	VAC	2	1	0	3	40	60	100
	BOT 101P	Operation Theatre Technology Basics Lab	DSC	0	0	6	3	60	40	100
	BOT 102P	Vital Signs and Management of Medical Emergencies Lab	DSC	0	0	4	2	60	40	100
	Total			13	4	10	22	400	400	800

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	COURSE CODE	COURSE NAME	COURSE TYPE	Periods			Total Credits	Evaluation Scheme		
				L	T	P		CIA	ESE	Subject Total
SET 2	BOT 201T	Basic Operation Theatre Equipment, Drugs and Techniques	DSC	3	1	0	4	40	60	100
	BOT 202T	Infection Control and Biomedical Waste Management	DSC	2	0	0	2	40	60	100
	BOT 203T	Hospital Services	MD	2	1	0	3	40	60	100
	BOT 204T	Business Communication	AEC	2	1	0	3	60	40	100
	BOT 205T	Job Ready Skills I	SEC	2	0	0	2	60	40	100
	BOT 206T	AI Tools	VAC	2	1	0	3	40	60	100
	BOT 201P	Basic Operation Theatre Equipment, Drugs and Techniques Lab	DSC	0	0	6	3	60	40	100
	BOT 202P	Infection Control and Biomedical Waste Management Lab	DSC	0	0	4	2	60	40	100
		Total		13	4	10	22	400	400	800

	COURSE CODE	COURSE NAME	COURSE TYPE	Periods			Total Credits	Evaluation Scheme		
				L	T	P		CIA	ESE	Subject Total
SET 3	BOT 301T	Advanced Operation Theatre Equipment, Drugs and Techniques	DSC	3	1	0	4	40	60	100
	BOT 302T	Intensive Care Unit	DSC	2	1	0	3	40	60	100
	BOT 303T	Medical Law and Ethics	MD	2	1	0	3	40	60	100
	BOT 304T	Sales and Marketing	AEC	2	1	0	3	60	40	100
	BOT 305T	Job Ready Skills II	SEC	2	0	0	2	60	40	100
	BOT 301P	Advanced Operation Theatre Equipment, Drugs and Techniques Lab	DSC	0	0	8	4	60	40	100
	BOT 302P	Intensive Care Unit Lab	DSC	0	0	6	3	60	40	100
		Total		11	4	14	22	360	340	700

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SET 4	COURSE CODE	COURSE NAME	COURSE TYPE	Periods			Total Credits	Evaluation Scheme		
				L	T	P		CIA	ESE	Subject Total
	BOT 401T	Assisted Feeding	DSC	3	1	0	4	40	60	100
	BOT 402T	Specialized Surgeries I	DSC	3	1	0	4	40	60	100
	BOT 403T	Specialized Surgeries II	DSC	2	2	0	4	40	60	100
	BOT 404T	Diet and Nutrition	DSC	2	0	0	2	40	60	100
	BOT 405T	Leadership Skills for Business Success	AEC	2	0	0	2	60	40	100
	BOT 401P	Assisted Feeding Lab	DSC	0	0	8	4	60	40	100
	BOT 402P	Specialized Surgeries I Lab	DSC	0	0	4	2	60	40	100
		Total		12	4	12	22	340	360	700

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	COURSE CODE	COURSE NAME	COURSE TYPE	Periods			Total Credits	Evaluation Scheme		
				L		P		CIA	ESE	Subject Total
SET 5	BOT 501P	Introduction to Operation Theatre (OT) Protocols	DSC	0	0	24	12	60	40	100
	BOT 502P	Managing Medical Emergencies	DSC	0	0	12	6	60	40	100
	BOT 503P	Summer Internship	SI	0	0	4	2	60	40	100
		Total		0	0	40	20	180	120	300

	COURSE CODE	COURSE NAME	COURSE TYPE	Periods			Total Credits	Evaluation Scheme		
				L		P		CIA	ESE	Subject Total
SET 6	BOT 601P	Infection Control Practices	DSC	0	0	24	12	60	40	100
	BOT 602P	Preoperative Patient Preparation	DSC	0	0	12	6	60	40	100
	BOT 603P	Internship	SEC	0	0	4	2	60	40	100
				0	0	40	20	180	120	300

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SET 7	COURSE CODE	COURSE NAME	COURSE TYPE	Periods			Total Credits	Evaluation Scheme		
				L	T	P		CIA	ESE	Subject Total
	BOT 701P	Anesthesia Equipment	DSC	0	0	24	12	60	40	100
	BOT 702P	Central Sterile Supply Department	DSC	0	0	16	8	60	40	100
		Total		0	0	40	20	120	80	200

SET 8	COURSE CODE	COURSE NAME	COURSE TYPE	Periods			Total Credits	Evaluation Scheme		
				L	T	P		CIA	ESE	Subject Total
	BOT 801P	Assisting in Various Types of Anaesthesia	DSC	0	0	16	8	60	40	100
	BOT 802P	Airway Management and Intubation Techniques	DSC/RP	0	0	8	4	60	40	100
	BOT 803P	Surgical Instrumentation and Tray Setup	DSC/RP	0	0	8	4	60	40	100
	BOT 804P	Surgical Positioning and Draping Techniques	DSC/RP	0	0	8	4	60	40	100
		Total		0	0	40	20	240	160	400

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LEVEL 6 (Bachelor)

1st Classroom Semester- Set 1
2nd Classroom Semester- Set 2
3rd Classroom Semester- Set 3
4th Classroom Semester- Set 4

1st Internship Semester- Set 5
2nd Internship Semester- Set 6
3rd Internship Semester- Set 7
4th Internship Semester- Set 8

LEVEL 5 (Diploma)

1st Classroom Semester- Set 1
2nd Classroom Semester- Set 2

1st Internship Semester- Set 5
2nd Internship Semester- Set 6

LEVEL 5.5 (B.Sc.)

1st Classroom Semester- Set 1
2nd Classroom Semester- Set 2
3rd Classroom Semester- Set 3

1st Internship Semester- Set 5
2nd Internship Semester- Set 6
3rd Internship Semester- Set 7

LEVEL 4.5 (Certificate)

1st Classroom Semester- Set 1

1st Internship Semester- Set 5



BACHELOR IN ANAESTHESIA AND OPERATION THEATRE TECHNOLOGY

Students choosing the level 4.5 exit will study set 1 in semester I and set 5 in semester II

	COURSE CODE	COURSE NAME	COURSE TYPE	CREDITS				Evaluation Scheme--		
				L	T	P	Total	CIA	ESE	Subject Total
SEMESTER-I (The student will study set 1)	BOT 101T	Operation Theatre Technology Basics	DSC	3	1	0	4	40	60	100
	BOT 102T	Vital Signs and Management of Medical Emergencies	DSC	2	0	0	2	40	60	100
	BOT 103T	Healthcare Delivery System	MD	2	1	0	3	40	60	100
	BOT 104T	Digital Literacy	AEC	2	0	0	2	60	40	100
	BOT 105T	Communicative English	SEC	2	1	0	3	60	40	100
	BOT 106T	Environment and Ecological Sustainability	VAC	2	1	0	3	40	60	100
	BOT 101P	Operation Theatre Technology Basics Lab	DSC	0	0	6	3	60	40	100
	BOT 102P	Vital Signs and Management of Medical Emergencies Lab	DSC	0	0	4	2	60	40	100
	Total			13	4	10	22	400	400	800

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1. An exit request for UG certificate can be raised maximum before the start of Semester II. In case a student raises a request for exit after the start of Semester II, they can only opt for the next available exit stage i.e. 2 year UG Diploma.
2. If a student does not wish to either opt for the next available exit stage or continue with the course, no certification will be provided to the student
3. Students have to pass all the previous exams in order to be eligible for the internship semester.
4. In case a student fails in any of the exams in any semester, s/he will get another chance to reappear in the next end semester exam.
5. If a student wants to exit for a UG Certificate, after Semester I, then s/he has to complete the required credits in the internship semesters as given below.

SEMESTER - II (Student will study set 5)	COURSE CODE	COURSE NAME	COURSE TYPE	CREDITS				Evaluation Scheme--		
				L	T	P	Total	CIA	ESE	Subject Total
	BOT 501P	Introduction to Operation Theatre (OT) Protocols	DSC	0	0	24	12	60	40	100
	BOT 502P	Managing Medical Emergencies	DSC	0	0	12	6	60	40	100
	BOT 503P	Summer Internship	SI	0	0	4	2	60	40	100
				0	0	40	20	180	120	300

Students exiting the programme after securing 40 credits will be awarded a UG Diploma (Operation Theatre Technology), provided they secure 4 credits in work-based vocational courses offered during the summer term or an internship / Apprenticeship in addition to 6 credits from skill-based courses earned during the first and second semester.

Students choosing the level 5 exit will study set 1 in semester I, set 2 in semester II, set 5 in semester III, and set 6 in semester IV

If a student wants to continue after Semester I, then this SET will be followed for Semester II.

	COURSE CODE	COURSE NAME	COURSE TYPE	CREDITS				Evaluation Scheme--		
				L	T	P	Total	CIA	ESE	Subject Total
SEMESTER-II (Student will study set 2)	BOT 201T	Basic Operation Theatre Equipment, Drugs and Techniques	DSC	3	1	0	4	40	60	100
	BOT 202T	Infection Control and Biomedical Waste Management	DSC	2	0	0	2	40	60	100
	BOT 203T	Hospital Services	MD	2	1	0	3	40	60	100
	BOT 204T	Business Communication	AEC	2	1	0	3	60	40	100
	BOT 205T	Job Ready Skills I	SEC	2	0	0	2	60	40	100
	BOT 206T	AI Tools	VAC	2	1	0	3	40	60	100
	BOT 201P	Basic Operation Theatre Equipment, Drugs and Techniques Lab	DSC	0	0	6	3	60	40	100
	BOT 202P	Infection Control and Biomedical Waste Management Lab	DSC	0	0	4	2	60	40	100
				13	4	10	22	400	400	800

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1. An exit request for a UG diploma can be raised maximum before the start of Semester III. In case a student raises a request for exit after the start of Semester III, they can only opt for the next available exit stage i.e. 3 year UG Degree.
2. If a student does not wish to either opt for the next available exit stage or continue with the course, no certification will be provided to the student.
3. Students have to pass all the previous exams in order to be eligible for the internship semester.
4. In case a student fails in any of the exams in any semester, s/he will get another chance to reappear in the next end semester exam.
5. If a student wants to exit for a UG Diploma after Semester II, then s/he has to complete the required credits in the internship semesters as given below.

SEMESTER - III (Student will study set 5)	COURSE CODE	COURSE NAME	COURSE TYPE	CREDITS				Evaluation Scheme--		
				L	T	P	Total	CIA	ESE	Subject Total
	BOT 501P	Introduction to Operation Theatre (OT) Protocols	DSC	0	0	24	12	60	40	100
	BOT 502P	Managing Medical Emergencies	DSC	0	0	12	6	60	40	100
	BOT 503P	Summer Internship	SI	0	0	4	2	60	40	100
				0	0	40	20	180	120	300

SEMESTER - IV (Student will study set 6)	COURSE CODE	COURSE NAME	COURSE TYPE	CREDITS				Evaluation Scheme--		
				L	T	P	Total	CIA	ESE	Subject Total
	BOT 601P	Infection Control Practices	DSC	0	0	24	12	60	40	100
	BOT 602P	Preoperative Patient Preparation	DSC	0	0	12	6	60	40	100
	BOT 603P	Internship	SEC	0	0	4	2	60	40	100
				0	0	40	20	180	120	300

Students exiting the programme after securing 80 credits will be awarded a UG Diploma (Operation Theatre Technology), provided they secure an additional 4 credits in skill-based vocational courses offered during the first year or second year summer term. If a student wants to continue after Semester II, then this SET will be followed for Semester III.

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Students choosing the level 5.5 exit will study set 1 in semester 1, set 2 in semester II, set 3 in semester III, set 5 in semester IV, set 6 in semester V, and set 7 in semester VI

If a student wants to continue after Semester II, then this SET will be followed for Semester III.

	COURSE CODE	COURSE NAME	COURSE TYPE	CREDITS				Evaluation Scheme--		
				L	T	P	Total	CIA	ESE	Subject Total
SEMESTER - III (Student will study set 3)	BOT 301T	Advanced Operation Theatre Equipment, Drugs and Techniques	DSC	3	1	0	4	40	60	100
	BOT 302T	Intensive Care Unit	DSC	2	1	0	3	40	60	100
	BOT 303T	Medical Law and Ethics	MD	2	1	0	3	40	60	100
	BOT 304T	Sales and Marketing	AEC	2	1	0	3	60	40	100
	BOT 305T	Job Ready Skills II	SEC	2	0	0	2	60	40	100
	BOT 301P	Advanced Operation Theatre Equipment, Drugs and Techniques Lab	DSC	0	0	8	4	60	40	100
	BOT 302P	Intensive Care Unit Lab	DSC	0	0	6	3	60	40	100
				11	4	14	22	360	340	700

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1. An exit request for 3 year UG degree can be raised maximum before the start of Semester IV. In case a student raises a request for exit after the start of Semester IV, they can only opt for the next available exit stage i.e. 4 year UG degree with honors.
2. If a student does not wish to either opt for the next available exit stage or continue with the course, no certification will be provided to the student.
3. Students have to pass all the previous exams in order to be eligible for the internship semester.
4. In case a student fails in any of the exams in any semester, s/he will get another chance to reappear in the next end semester exam.
5. If a student wants to exit for a 3 year UG Degree, after Semester III, then s/he has to complete the required credits in the internship semesters as given below.

SEMESTER - IV (Student will study set 5)	COURSE CODE	COURSE NAME	COURSE TYPE	CREDITS				Evaluation Scheme--		
				L	T	P	Total	CIA	ESE	Subject Total
	BOT 501P	Introduction to Operation Theatre (OT) Protocols	DSC	0	0	24	12	60	40	100
	BOT 502P	Managing Medical Emergencies	DSC	0	0	12	6	60	40	100
	BOT 503P	Summer Internship	SI	0	0	4	2	60	40	100
				0	0	40	20	180	120	300

SEMESTER - V (Student will study set 6)	COURSE CODE	COURSE NAME	COURSE TYPE	CREDITS				Evaluation Scheme--		
				L	T	P	Total	CIA	ESE	Subject Total
	BOT 601P	Infection Control Practices	DSC	0	0	24	12	60	40	100
	BOT 602P	Preoperative Patient Preparation	DSC	0	0	12	6	60	40	100
	BOT 603P	Internship	SEC	0	0	4	2	60	40	100
				0	0	40	20	180	120	300

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SEMESTER - VI (Student will study set 7)	COURSE CODE	COURSE NAME	COURSE TYPE	CREDITS				Evaluation Scheme--		
				L	T	P	Total	CIA	ESE	Subject Total
	BOT 701P	Anesthesia Equipment	DSC	0	0	24	12	60	40	100
	BOT 702P	Central Sterile Supply Department	DSC	0	0	16	8	60	40	100
				0	0	40	20	120	80	200

Students who want to undertake a 3-year UG programme will be awarded a Bachelor of Science (Operation Theatre Technology) degree upon securing 120 credits

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Students choosing the level 6 exit will study set 1 in semester I, set 2 in semester II, set 3 in semester III, set 4 in semester IV, set 5 in semester V, set 6 in semester VI, set 7 in semester VII, and set 8 in semester VIII

If a student wants to continue after Semester III, then this SET will be followed for the remaining semesters.

	COURSE CODE	COURSE NAME	COURSE TYPE	CREDITS				Evaluation Scheme--		
				L	T	P	Total	CIA	ESE	Subject Total
SEMESTER-IV (Student will study set 4)	BOT 401T	Assisted Feeding	DSC	3	1	0	4	40	60	100
	BOT 402T	Specialized Surgeries I	DSC	3	1	0	4	40	60	100
	BOT 403T	Specialized Surgeries II	DSC	2	2	0	4	40	60	100
	BOT 404T	Diet and Nutrition	DSC	2	0	0	2	40	60	100
	BOT 405T	Leadership Skills for Business Success	AEC	2	0	0	2	60	40	100
	BOT 401P	Assisted Feeding Lab	DSC	0	0	8	4	60	40	100
	BOT 402P	Specialized Surgeries I Lab	DSC	0	0	4	2	60	40	100
				12	4	12	22	340	360	700

1. Students have to pass all the previous exams in order to be eligible for the internship semester.
2. In case a student fails in any of the exams in any semester, s/he will get another chance to reappear in the next end semester exam.

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SEMESTER-V (Student will study set 5)	COURSE CODE	COURSE NAME	COURSE TYPE	CREDITS				Evaluation Scheme--		
				L	T	P	Total	CIA	ESE	Subject Total
	BOT 501P	Introduction to Operation Theatre (OT) Protocols	DSC	0	0	24	12	60	40	100
	BOT 502P	Managing Medical Emergencies	DSC	0	0	12	6	60	40	100
	BOT 503P	Summer Internship	SI	0	0	4	2	60	40	100
				0	0	40	20	180	120	300

SEMESTER-VI (Student will study set 6)	COURSE CODE	COURSE NAME	COURSE TYPE	CREDITS				Evaluation Scheme--		
				L	T	P	Total	CIA	ESE	Subject Total
	BOT 601P	Infection Control Practices	DSC	0	0	24	12	60	40	100
	BOT 602P	Preoperative Patient Preparation	DSC	0	0	12	6	60	40	100
	BOT 603P	Internship	SEC	0	0	4	2	60	40	100
				0	0	40	20	180	120	300

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SEMESTER-VII (Student will study set 7)	COURSE CODE	COURSE NAME	COURSE TYPE	CREDITS				Evaluation Scheme--		
				L	T	P	Total	CIA	ESE	Subject Total
	BOT 701P	Anesthesia Equipment	DSC	0	0	24	12	60	40	100
	BOT 702P	Central Sterile Supply Department	DSC	0	0	16	8	60	40	100
				0	0	40	20	120	80	200

SEMESTER-VIII (The student will study set 8)	COURSE CODE	COURSE NAME	COURSE TYPE	CREDITS				Evaluation Scheme--		
				L	T	P	Total	CIA	ESE	Subject Total
	BOT 801P	Assisting in Various Types of Anaesthesia	DSC	0	0	16	8	60	40	100
	BOT 802P	Airway Management and Intubation Techniques	DSC/RP	0	0	8	4	60	40	100
	BOT 803P	Surgical Instrumentation and Tray Setup	DSC/RP	0	0	8	4	60	40	100
	BOT 804P	Surgical Positioning and Draping Techniques	DSC/RP	0	0	8	4	60	40	100
				0	0	40	20	240	160	400

Students will be awarded a Bachelor in Anaesthesia and Operation Theatre Technology degree provided they secure 160 credits

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Course Type Abbreviations:

DSC: Discipline Specific Core/Major Courses

MD: Multi-Disciplinary Courses

AEC: Ability Enhancement Courses

SEC: Skill Enhancement Courses

VAC: Common Values Added Courses

SI: Summer Internship

RP: Research Project

CIA: Continuous Internal Assessment

ESE: End Semester Examination

L: Lecture

T: Tutorial

P: Practical



Babu Banarasi Das University, Lucknow
School of Allied Health Sciences
School Code: 13
University Branch Code: 18
Evaluation Scheme (w.e.f. – 2025-26)

PROGRAM OUTCOMES

- PO1: Demonstrate comprehensive knowledge of human anatomy, physiology, pharmacology, and medical terminology to effectively support surgical and anesthesia-related procedures.
- PO2: Apply principles of asepsis, infection control, and sterilization to maintain a safe and sterile environment in operating theatres and critical care settings.
- PO3: Understand the principles and practices of anesthesia administration, monitoring, and emergency management to assist anesthetists in delivering safe patient care.
- PO4: Prepare and manage surgical instruments, OT equipment, anesthesia machines, and monitoring systems required for various types of surgeries and interventions.
- PO5: Assist in patient positioning, preparation, and monitoring during preoperative, intraoperative, and postoperative stages to ensure safety and comfort.
- PO6: Exhibit proficiency in handling critical situations such as airway management, cardiopulmonary resuscitation (CPR), and managing anesthesia-related complications.
- PO7: Apply ethical principles, professional behavior, and medico-legal knowledge in clinical settings to ensure patient rights, safety, and confidentiality.
- PO8: Demonstrate the ability to collaborate and communicate effectively with surgeons, anesthetists, nurses, and other healthcare professionals to ensure coordinated care delivery.
- PO9: Utilize digital tools, healthcare information systems, and documentation protocols to maintain accurate and confidential patient records and support evidence-based care.
- PO10: Integrate knowledge of pathology, microbiology, and systemic diseases with perioperative care to anticipate patient needs and respond appropriately during surgeries.
- PO11: Exhibit strong problem-solving, decision-making, and adaptability in high-pressure surgical environments, contributing to efficient and safe outcomes.
- PO12: Engage in lifelong learning, research awareness, and continuous professional development to adapt to advancements in anesthesia, surgical techniques, and healthcare technologies.



PROGRAM SPECIFIC OUTCOMES

PSO 1: Demonstrate comprehensive knowledge and technical proficiency in operating room protocols, aseptic techniques, anesthesia equipment, and surgical instrument management to ensure a safe, sterile, and efficient perioperative environment.

PSO 2: Develop effective communication, teamwork, and basic leadership skills to support the smooth functioning of hospital operations and contribute to quality patient care.



Program	BAOTT				
Year	I	Semester		I	
Course Name	Operation Theatre Technology Basics				
Code	BOT 101T				
Course Type	DSC	L	T	P	Credit
Pre-Requisite		3	1	0	4
Course Objectives	Understand the anatomical planes and positions used to describe the human body, and learn the foundational structure and usage of medical terminology including prefixes, suffixes, abbreviations, and directional terms. Explore the basics of human anatomy and physiology. To familiarize students with OT layout, zoning, planning, and essential documentation practices as per NABH guidelines. Understand the key responsibilities and professional conduct of an OT technician across all surgical phases.				
Course Outcomes					
CO1	Describe human body structures using anatomical planes, positions, and appropriate medical terminology.				
CO2	Explain the structure and functions of cells, tissues, organs, and organ systems, and explain their interrelationships and roles in maintaining homeostasis and overall health.				
CO3	Describe the basics of an OT complex.				
CO4	Explain the roles and responsibilities of an OT technician.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	Anatomical Planes, Anatomical Positions and Medical Terminology: Sagittal plane, Frontal plane, Transverse plane, Supine position, Prone position, Parts of medical terminology, Rules for constructing and interpreting medical terms, Terminology related to body parts, Regional terms of the human body, Directional terms, Abbreviations & symbols, Prefixes, Suffixes	15 Hours	CO1

2	Anatomy and Physiology: Cell, Tissue, Organ, Organ system, Digestive system, Respiratory system, Integumentary system, Circulatory system, Lymphatic System, Muscular system, Skeletal System, Urinary System, Reproductive System - Male and female, Endocrine system, Nervous System, Body fluids	15 Hours	CO2
3	Basics of OT: Duties of OT technician, Peripheral support areas, Zoning in OT Complex, Operation theatre planning, Reporting and documentation, NABH	15 Hours	CO3
4	Duties of an OT Technician: Roles of an OT technician before, during, and after surgery, Specialization of OT technician, Qualities of an OT technician	15 Hours	CO4

Suggested Readings

1. B.D. Chaurasia, Applied Anatomy and Physiology, CBS Publishers & Distributors Pvt. Ltd.
2. M.P. Sharma, Operation Theater Techniques and Management, AITBS Publishers.
3. Davi-Allen Chabner, Saunders Medical Terminology: A Short Course

Online Resources

1. <https://www.ncbi.nlm.nih.gov/books/NBK607454/>
2. <https://www.aspan.org/Clinical-Practice>
3. <https://openstax.org/details/books/anatomy-and-physiology-2e>

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	-	-	-	-	-	-	-	-	2	-	-	2	-
CO2	3	-	-	-	-	-	-	-	-	3	-	-	2	-
CO3	2	3	2	3	2	1	-	1	2	2	2	1	3	2
CO4	2	3	2	3	3	2	2	3	2	2	3	2	3	3

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Program	BAOTT				
Year	I	Semester	I		
Course Name	Vital Signs and Management of Medical Emergencies				
Code	BOT 102T				
Course Type	DSC	L	T	P	Credit
Pre-Requisite		2	0	0	2
Course Objectives	Explain the concept, types, and normal ranges of vital signs, and demonstrate accurate measurement and interpretation using appropriate clinical methods and equipment. Describe and apply the step-by-step process of administering Cardiopulmonary Resuscitation (CPR) in adults and children, and manage choking incidents effectively through risk identification and appropriate first aid techniques. Provide appropriate first aid for common medical emergencies such as fractures, burns, hemorrhage, stroke, and wounds, ensuring timely and effective pre-hospital care.				
Course Outcomes					
CO1	Understand, measure and interpret the various types of vital signs and their normal ranges along with their clinical significance				
CO2	Perform CPR (Cardiopulmonary resuscitation) in adults and children.				
CO3	Assist in managing medical emergencies, including choking, fractures, burns, hemorrhage, stroke, and wounds.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	Vital Signs and its Measurement: Introduction to vital signs, Types of vital signs, Normal ranges of vital signs, Methods and instruments used to monitor vital signs	10 Hours	CO1
2	CPR – Adult and Child: CPR (Cardiopulmonary resuscitation), Indications of CPR, Steps in CPR, The algorithm of Adult CPR, CPR (Cardiopulmonary resuscitation) in Child	10 Hours	CO2

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3	Common Medical Emergencies and its Management Choking/Foreign body airway obstruction, Risk factors of choking, Mechanism of occurrence of choking, Signs of choking, Complications of choking, Choking management, First aid for fractures, Burns management, Haemorrhage management, Stroke management, Wound management	10 Hours	CO3
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Suggested Readings

1. Devendra Richhariya, Textbook of Emergency and Trauma Care, Jaypee Brothers Medical Publishers
2. S.P. Gupta & D.K. Gupta, Medical Emergencies in General Practice

Online Resources

1. <https://medlineplus.gov>
2. <https://cpr.heart.org>
3. <https://www.redcross.org>

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	2	2	-	2	2	-	1	1	3	2	1	2	-
CO2	2	2	3	-	2	3	-	1	-	2	3	2	2	-
CO3	2	3	3	2	3	3	1	2	1	3	3	2	3	2

Program	BAOTT				
Year	I	Semester	I		
Course Name	Healthcare Delivery System				
Code	BOT 103T				
Course Type	MD	L	T	P	Credit
Pre-Requisite		2	1	0	3
Course Objectives	Understand the structure of the Indian healthcare delivery system, including its primary, secondary, and tertiary levels, as well as public and private sectors, while gaining knowledge about alternative healthcare systems under AYUSH and the role of hospitals in healthcare delivery. Understand National Health Programs, voluntary agencies, and foundational health concepts, including disease types and hospital roles in healthcare delivery. Comprehend the basic concepts of demography and epidemiology, including population statistics, trends, and principles of disease occurrence and distribution in the Indian context.				
Course Outcomes					
CO1	Describe the structure of the Indian healthcare system including levels of care (primary, secondary, tertiary), and differentiate the roles of public, private, and alternative systems like AYUSH.				
CO2	Explain the objectives of national health programs and voluntary health agencies, and define health and disease along with their determinants and influencing factors.				
CO3	Explain key demographic features of India and basic epidemiological concepts related to public health.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	Indian Healthcare Delivery System and Alternative Medicine Introduction to Indian Health Care Delivery System, Levels of healthcare – Primary, secondary and tertiary levels, Healthcare Sectors - Public sector, Private sector, AYUSH (Ayurveda, Yoga, Unani, Siddha, and Homeopathy)	15 Hours	CO1

2	National Health Programs and Basic Concepts of Health and Disease: National Health programs, Voluntary health agencies, Basic concept of health, Basic concept of diseases, Health determinants, Types of diseases, Factors influencing health and disease, Hospital as an organization	15 Hours	CO2
3	Demography and Epidemiology: Demography of India: Population trends and statistics, Epidemiology: Basic principles, definitions	15 Hours	CO3

Suggested Readings

1. B.M. Sakharkar, Principles of Hospital Administration and Planning, Jaypee Brothers Medical Publishers
2. Caroline Curren, Meg Stacey, Concepts of Health, Illness and Disease: A Comparative

Online Resources

1. <https://lmis.nihfw.ac.in/local/course/view.php?id=734>
2. <https://ayush.gov.in/#/>
3. <https://www.india.gov.in/ministry-health-and-family-welfare-6>
4. <https://www.who.int/health-topics>

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2	-	-	-	1	-	2	2	2	2	1	2	1	2
CO2	2	-	-	-	-	-	2	1	1	2	1	2	-	2
CO3	2	-	-	-	-	-	1	1	-	3	1	2	-	1

Program	BAOTT				
Year	I	Semester		I	
Course Name	Digital Literacy				
Code	BOT 104T				
Course Type	AEC	L	T	P	Credit
Pre-Requisite		2	0	0	2
Course Objective	Describe the fundamental components of a computer, basic operations, and perform number system conversions. Explain the principles of computer networks, operating systems, and basic internet concepts. Demonstrate effective use of MS Office tools for word processing, creating spreadsheets, and preparing presentations.				
Course Outcomes					
CO1	Describe basic computer components, operations, and number system conversions.				
CO2	Explain computer networks, operating systems, and internet fundamentals.				
CO3	Utilize MS Office tools effectively for word processing, spreadsheets, and presentations.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	Introduction to Computer, Operations and Number System Characteristics of computer, Application of computer, Classification of computer, Types of computers, Generation and organization, Computer languages, Input and output devices, Hardware and software, Computer memory, Number system, Different types of number systems used in computer, Number system conversion	5 Hours	CO1
2	Computer Network, Operating System and Internet: Introduction to computer networks, Networking components, Classification and types of networks, Topologies, Communication channels, Client server architecture, LAN concepts Introduction to operating system, Functions of operating system, Types of operating system, Classification of	8 Hours	CO2

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	operating system, Components of operating system, Basics of internet		
3	MS Office: MS Word, MS Excel, MS PowerPoint	17 Hours	CO3

Suggested Readings

1. The Essentials of Computer Organization and Architecture, Linda Null and Julia Lobur, 2006
2. Understanding Digital Literacies: A Practical Introduction, Rodney H. Jones and Christoph A. Hafner, 2016

Online Resources

1. <https://lms.nihfw.ac.in/local/course/view.php?id=734>
2. https://www.researchgate.net/publication/313309097_Operating_Systems#:~:text=An%20operating%20system%20is%20a,physical%20computer%20to%20execute%20applications.
3. <https://lincs.ed.gov/sites/default/files/TSTMDigitalLiteracyBrief-508.pdf>
4. <https://davpgcvns.ac.in/wp-content/uploads/2020/11/Introduction-of-MS-Office-MS-Word-PDF-eng.pdf>

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	-	-	-	-	-	-	-	-	3	-	1	2	-	1
CO2	-	-	-	-	-	-	-	-	3	-	1	2	-	1
CO3	-	-	-	-	-	-	-	1	3	-	2	2	-	2

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Program	BAOTT				
Year	I	Semester	I		
Course Name	Communicative English				
Code	BGT 105T				
Course Type	SEC	L	T	P	Credit
Pre-Requisite		2	1	0	3
Course Objective	Understand and differentiate between various types of communication skills, including verbal and non-verbal forms. Demonstrate effective communication using appropriate body language, posture, and context-based interactions. Apply personal hygiene and grooming etiquette to maintain a professional and presentable appearance.				
Course Outcomes					
CO1	Understand and differentiate between various types of communication skills, including verbal and non-verbal forms.				
CO2	Demonstrate effective communication using appropriate body language, posture, and context-based interactions.				
CO3	Apply personal hygiene and grooming etiquette to maintain a professional appearance.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	Communication Skills and Types of Communication Communication skills, Types of communication skills, Oral communication, Written communication, Facial expressions, Tone of voice, Pitch of voice, Body language	15 Hours	CO1
2	Body Language and Posture: Components of body language, Components of posture	15 Hours	CO2
3	Personal Hygiene and Grooming Importance of personal hygiene, Components of personal hygiene, Grooming etiquette, Do's and Don'ts of Grooming	15 Hours	CO3

Suggested Readings

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1. Ahuja, B.N. and S.S. Chopra, Communication, Surjeet Publications, 2006
2. Barun K Mitra, Personality Development and Soft Skills, Oxford University Press, 2016

Online Resources

1. <https://www.skillsyouneed.com>
2. <https://www.mindtools.com>
3. <https://alison.com>

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	-	-	-	-	-	-	-	3	-	-	2	2	-	3
CO2	-	-	-	-	-	-	-	3	-	-	2	2	-	3
CO3	-	-	-	-	-	-	2	2	-	-	1	1	-	2

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Program	BAOTT				
Year	I	Semester		I	
Course Name	Environment and Ecological Sustainability				
Code	BOT 106T				
Course Type	VAC	L	T	P	Credit
Pre-Requisite		2	1	0	3
Course Objectives	To develop basic knowledge of environment, ecology and ecosystem. To impart basic and key knowledge of atmospheric and global climate change. To develop a knowledge of natural resources, conservation and sustainable use. To recognize knowledge of effects disturbance, adaptation and development in the ecosystem. To help students to acquire knowledge of pollution and environment protection.				
Course Outcomes					
CO1	Understand atmosphere and climatic change, major biome and ecosystem energy.				
CO2	Be able to conserve natural resources and to learn equity at different levels and benefits of sustainable use of natural resources.				
CO3	Develop improved understanding of environmental pollution principles and application of environmental management tools including legislation and regulation.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	Environment & Ecology Environment and its segments: Definition, Scope and importance; Atmosphere: Composition, characterization, temperature behaviour and atmospheric stability, climate change; Hydrosphere; Water distribution Lithosphere: Structure and composition. Biosphere Ecology and Ecosystem: Introduction, Concept of an Ecosystem,	15 Hours	CO1

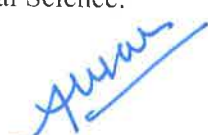
	Structure and function of Ecosystem, Energy flow in an Ecosystem, Food chain and food web, Types of Ecosystem; Ecological Pyramids: Definition, Types of Ecological Pyramid Material cycle: Definition and importance, Nitrogen and carbon cycle.		
2	Natural Resources: Natural resources: Definition, types of natural resource Water Resources: Drinking water quality, Water crisis and uses, Water borne and water induced diseases, Fluoride problem in drinking water, Rain water harvesting; Forest Resources: Impact of deforestation on environment Food resources: Crisis, Food adulteration and Hygiene National Policy for Food Security and Managements. Mineral Resources: Use and exploitation of minerals, Impact of mining on environment; Energy resources: Conventional and nonconventional energy sources, Solar energy, Hydropower energy, Hydrogen energy, Biomass-energy Sustainable Development: Definition, sustainable use and conservation of natural resource, Equitable use of Resources, Common Property Resources: Biodiversity and its conservation Environment Management System(EMS): Definition, stages of EMS, cost and benefits of EMS	15 Hours	CO2
3	Environmental Pollution and Protection Environmental Pollution: Definition, Pollutants, sources, causes, effects and control measures of air, water, and soil pollution; Noise: Sources of Noise pollution, Measurement of noise, Noise exposure levels and standards. Impact of noise on human health. Noise control and abatement measures. Current environmental Issues: Population growth, Logistic growth curve equation. Climate change, Global Warming, Acid rain, Ozone layer, Waste Water Treatments. Solid Waste Management, Natural disaster and its management. Environment Protection: Legal aspects of Environment Protection, Environment Protection Act, Air(Prevention and Control of Pollution)Act, Water(Prevention and control of Pollution) Act, Role of NGOs in Environment Protection. Environmental Protection and Sustainability Environmental Education and Awareness.	15 Hours	CO3

Suggested Readings

1. Daniel B. Botkin and Edward A. Keller, Environmental Science: Earth as a Living Planet
2. R. Rajagopalan, Environmental Studies
3. William P. Cunningham and Mary Ann Cunningham, Principles of Environmental Science:









Inquiry and Applications

Online Resources

1. <https://pubmed.ncbi.nlm.nih.gov/31506839/>
2. <https://ecology.edu>

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2	-	-	-	-	-	-	-	-	2	1	2	-	-
CO2	2	2	-	-	-	-	2	1	-	2	1	3	-	2
CO3	2	2	-	-	-	-	3	1	-	2	2	3	-	2



Program	BAOTT				
Year	I	Semester		I	
Course Name	Operation Theatre Technology Basics Lab				
Code	BOT 101P				
Course Type	DSC	L	T	P	Credit
Pre-Requisite		0	0	6	3
Course Objective	To enable students to identify and label the major anatomical structures of the respiratory, digestive, circulatory, excretory, and nervous systems. To help students recognize the layers of the skin and explain their functional importance. To familiarize students with the types of bones and joints and their anatomical locations in the human body.				
Course Outcomes					
CO1	Identify and label major anatomical structures of the respiratory, digestive, circulatory, excretory, and nervous systems.				
CO2	Recognize and describe the layers of the skin and their functional significance.				
CO3	Identify different types of bones and joints in the human body and understand their anatomical positioning.				

S. No.	List of Experiments	
1	Identification of different parts of the respiratory system	CO1
2	Identification of different parts of the digestive system	CO1
3	Identification of different layers of the skin	CO2
4	Identification of different parts of the circulatory system	CO1
5	Identification of different parts of the excretory system	CO2
6	Identification of different parts of the nervous system	CO2
7	Identification of different bones and joints in the human body	CO3

Suggested Readings

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1. B.D. Chaurasia, Applied Anatomy and Physiology, CBS Publishers & Distributors Pvt. Ltd.
2. M.P. Sharma, Operation Theater Techniques and Management, AITBS Publishers.
3. Davi-Allen Chabner, Saunders Medical Terminology: A Short Course

Online Resources

1. <https://www.ncbi.nlm.nih.gov/books/NBK607454/>
2. <https://www.aspar.org/Clinical-Practice>
3. <https://openstax.org/details/books/anatomy-and-physiology-2e>

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	-	-	-	-	-	-	-	-	3	1	1	2	-
CO2	3	-	-	-	-	-	-	-	-	2	1	1	1	-
CO3	3	-	-	-	1	-	-	-	-	2	1	1	2	-

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Program	BAOTT				
Year	I	Semester		I	
Course Name	Vital Signs and Management of Medical Emergencies Lab				
Code	BOT 102P				
Course Type	DSC	L	T	P	Credit
Pre-Requisite		0	0	4	2
Course Objective	Measure and accurately record vital signs including temperature, respiratory rate, pulse, blood pressure, and oxygen saturation. Demonstrate the correct procedures for performing CPR and defibrillation on adults and children. Apply appropriate first aid techniques to manage emergency situations such as choking effectively.				
Course Outcomes					
CO1	Measure and record vital signs including temperature, respiratory rate, pulse, blood pressure, and oxygen saturation.				
CO2	Demonstrate the correct procedure for CPR and defibrillation in adults and children.				
CO3	Manage emergency scenarios such as choking using appropriate first aid techniques.				

S. No.	List of Experiments	
1	Determination of temperature and respiratory rate	CO1
2	Determination of pulse, blood pressure and oxygen saturation	CO1
3	Perform CPR in adults and children	CO2
4	Perform defibrillation	CO2
5	Perform choking management	CO3

Suggested Readings

1. Devendra Richhariya, Textbook of Emergency and Trauma Care, Jaypee Brothers Medical Publishers
2. S.P. Gupta & D.K. Gupta, Medical Emergencies in General Practice

Online Resources

1. <https://medlineplus.gov>
2. <https://cpr.heart.org>
3. <https://www.redcross.org>

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	2	2	-	2	2	-	1	1	3	2	1	2	-
CO2	2	2	3	-	2	3	-	1	-	2	3	2	2	-
CO3	2	3	3	-	3	3	1	2	1	3	3	2	3	2



Program	BAOTT				
Year	I	Semester		II	
Course Name	Basic Operation Theatre Equipment, Drugs and Techniques				
Code	BOT 201T				
Course Type	DSC	L	T	P	Credit
Pre-Requisite		3	1	0	4
Course Objectives	To provide understanding of common diseases affecting major body systems and the basics of fluid and electrolyte balance. To introduce fundamental pharmacological concepts and commonly used drugs with focus on safety and effectiveness. To develop basic nursing care skills, including pre- and post-operative management, patient handling, and drug administration. To equip students with infection control techniques, anesthesia basics, and familiarity with OT equipment and surgical procedure				
Course Outcomes					
CO1	Understand common diseases of the digestive, respiratory, circulatory, neurological, and excretory systems, understanding their clinical implications.				
CO2	Understand about the common drugs used in clinical settings along with their mechanisms of action, and manage drug interactions and adverse reactions.				
CO3	Deliver effective patient care by providing comprehensive nursing care, drug administration and performing basic surgical techniques like suturing.				
CO4	To equip students with the knowledge and skills to implement effective infection control practices and to understand the principles of anesthesia, anesthetic drugs, and surgical techniques for ensuring patient safety and improved outcomes in surgical and critical care environments.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	Various Body System and Their Diseases: Digestive system diseases, Respiratory Diseases, Circulatory System Diseases, Neurological diseases, Excretory System Diseases and Fluid-Electrolyte Management	15 Hours	CO1

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2	Pharmacology: Basic principles of pharmacology, Principles of Pharmacokinetics, Principles of Pharmacodynamics, Drug Interactions and Adverse Drug Reactions, Pharmacology of commonly used drug	15 Hours	CO2
3	Nursing Care and Routes of Administration: Basics of nursing care, Aims of nursing care, Management of common medical conditions, Day care surgery, Preoperative management, Postoperative management, Intravenous cannulation and patient transfer, Different routes of administration, Suturing	15 Hours	CO3
4	CSSD, Anesthesia, Equipment and Procedures used in OT: Infection control in operation theater, Fumigation, Sterilization and Disinfection, Physical methods of sterilization, Chemical methods of sterilization, Cleaning of operation theater equipment, Anesthesia, Types of anesthesia, Stages of general anesthesia, Anesthetic drugs, Complications and management of anesthesia, Surgical part preparation and Surgical positioning, Various surgical and medical equipment, Surgical procedures	15 Hours	CO4

Suggested Readings

1. M.P. Sharma, Operation Theater Techniques and Management, AITBS Publishers
2. Ajay Yadav, Short Textbook of Anesthesia, Jaypee Brothers Medical Publishers.
3. K.D. Tripathi, Essentials of Medical Pharmacology, Jaypee Brothers Medical Publishers
4. Arora Yadav, Synopsis of Medical Instruments and Procedures, Jaypee Brothers Medical Publishers.
5. Berry, Edna Carnelia & Mary Louise Kohn, Introduction to OR Techniques, 4th edition

Online Resources

1. <https://www.ncbi.nlm.nih.gov/books/NBK591820/>
2. <https://apps.who.int/iris/handle/10665/44186>
3. <https://www.cdc.gov/infection-control/hcp/disinfection-sterilization/summary-recommendations.html>
4. <https://open.lib.umn.edu/pharmacology/>

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	-	-	-	1	1	-	-	-	3	2	2	2	-
CO2	3	-	-	-	1	2	-	-	-	3	2	2	2	-

CO3	2	2	2	2	3	3	1	2	-	3	3	3	3	2
CO4	3	3	3	3	3	3	2	2	-	3	3	3	3	2

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Program	BAOTT				
Year	I	Semester		II	
Course Name	Infection Control and Biomedical Waste Management				
Code	BOT 202T				
Course Type	DSC	L	T	P	Credit
Pre-Requisite		2	0	0	2
Course Objective	Apply infection control and proper PPE use. Implement sterilization and biomedical waste protocols. Understand vaccination importance for healthcare workers.				
Course Outcomes					
CO1	Understand different types of infections and apply infection control measures, including proper hand hygiene practices, utilizing PPE.				
CO2	Demonstrate knowledge of sterilization methods and BMW by implementing correct protocols				
CO3	Understand the importance of vaccination for healthcare workers.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	Infection & its Types and Infection Control and Prevention Definition of infection and infectious diseases, Types of infection – Acute, Chronic, Primary, Localized, Systemic, Clinical, Subclinical and Hospital Acquired Infections, Measures of Infection Control, Importance of Hand Hygiene, Hand washing Techniques, Hand Rub Techniques, 5 moments of hand Hygiene, PPE, Importance of PPE, Types of PPE and its uses, Sequence for donning and removing – PPE, Sterilization: introduction	10 Hours	CO1
2	Sterilization and BMW Management Sterilization vs Disinfection, Different methods of sterilization, Know about hot air oven, Autoclave, Factors affecting autoclave, Process of Autoclaving, Advantages and disadvantages of autoclave, Categorization of biomedical wastes, Steps for BMW management :- Segregation and colour codes for BMW, collection, storage and transportation of waste, Different methods for treatment of biomedical waste	10 Hours	CO2

3	Vaccination for Healthcare Professionals: Importance of vaccines for healthcare workers, Risk categorization, Currently recommended vaccines for healthcare workers, Post exposure prophylaxis	10 Hours	CO3
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Suggested Readings

1. S. Apruba Sastry, R. Deepashree, Essentials of Hospital Infection Control, Jaypee Brothers Medical Publishers
2. Singh Anantpreet, Kaur Sukhjot, Biomedical Waste Disposal, Jaypee Brothers Medical Publishers

Online Resources

1. <https://www.cdc.gov>
2. <https://main.icmr.nic.in>
3. <https://www.ncbi.nlm.nih.gov/books>
4. <https://www.who.int/infection-prevention>

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2	3	2	-	2	2	2	1	-	2	2	2	3	1
CO2	2	3	2	2	2	2	2	1	-	2	2	2	3	1
CO3	2	2	2	-	1	2	2	-	-	1	1	2	2	-

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Program	BAOTT				
Year	I	Semester		II	
Course Name	Hospital Services				
Code	BOT 203T				
Course Type	MD	L	T	P	Credit
Pre-Requisite		2	1	0	3
Course Objective	Describe hospital services, including patient care and specialized units. Explain the roles of key support services in hospital operations. Understand the functions of auxiliary services supporting hospital management.				
Course Outcomes					
CO1	Define and explain hospital services, including OPD/IPD patient care and the functions, planning, and requirements of specialized units like ICU, operation theaters, and daycare.				
CO2	Understand the functions of support services such as CSSD, dietary, laundry, blood bank, medical gas systems, and pharmacy services.				
CO3	Explain the functions and roles of auxiliary services, including registration, admitting departments, recordkeeping, ambulance & transport, and housekeeping in supporting hospital operations.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	Core Hospital Services: Introduction to hospital services, Classification of hospital services, Emergency services, OPD services, Inpatient services, ICU, Operation theater, Daycare services	15 Hours	CO1
2	Support Services: Introduction to support services, CSSD, Dietary, Laundry, Blood bank services, Medical gas system, Pharmacy services, Quality mandates for a hospital pharmacy	15 Hours	CO2
3	Auxiliary Services: Registration, Admitting department, Recordkeeping, Ambulance & transport, Maintenance department, Housekeeping Department	15 Hours	CO3








Suggested Readings

1. B.M. Sakharkar, Principles of Hospital Administration and Planning, Jaypee Brothers Medical Publishers
2. Caroline Curren, Meg Stacey, Concepts of Health, Illness and Disease: A Comparative
3. Tabish Syed Amin, Hospital and Health Services Administration: Principles and Practices, OUP India

Online Resources

1. <https://nhsrindia.org>
2. <https://main.mohfw.gov.in>
3. <https://www.nabh.co>

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2	2	2	3	3	2	1	2	-	2	2	2	3	2
CO2	2	3	2	2	2	2	1	2	-	2	2	2	3	2
CO3	1	2	1	2	2	1	1	3	2	1	2	2	2	3



Program	BAOTT				
Year	I	Semester		II	
Course Name	Business Communication				
Code	BOT 204T				
Course Type	AEC	L	T	P	Credit
Pre-Requisite		2	1	0	3
Course Objective	Understand and apply various communication methods in healthcare settings. Demonstrate effective communication with colleagues, clients, and customers. Handle sensitive healthcare communications confidently and professionally.				
Course Outcomes					
CO1	Understand the purpose and mechanisms of communication, including verbal, non-verbal, written, intrapersonal, and group communication, and apply them effectively in healthcare settings.				
CO2	Apply effective communication techniques in workplace interactions with colleagues, clients, and customers				
CO3	Communicate effectively in healthcare settings, addressing sensitive issues with confidence and professionalism.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	Communication, its Types and Methods Communication, Communication in society, How do we communicate, Non-verbal communication, Verbal communication, Forms of written communication, Intrapersonal communication, Group communication	15 Hours	CO1
2	Effective Communication at Workplace: Introduction to effective communication, Importance of effective communication, Verbal communication at workplace, Written communication at workplace	15 Hours	CO2
3	Communication in Healthcare: Types of communication in healthcare – Inter hospital and intra hospital communication, Causes and effects of poor communication in healthcare, Coping with anxiety while	15 Hours	CO2

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	communicating bad news, Effective communication checklist in healthcare, Learn how to communicate with patients and caregivers, Tips to communicate effectively		
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Suggested Readings

1. Ahuja, B.N. and S.S. Chopra, Communication, Surjeet Publications, 2006
2. Barun K Mitra, Personality Development and Soft Skills, Oxford University Press, 2016

Online Resources

1. <https://www.skillsyouneed.com>
2. <https://www.mindtools.com>
3. <https://alison.com>

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	1	1	1	-	2	1	2	3	-	1	2	2	-	3
CO2	-	-	-	-	1	1	2	3	-	-	2	2	-	3
CO3	1	1	1	-	2	2	3	3	-	1	3	2	-	3

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Program	BAOTT				
Year	I	Semester		II	
Course Name	Job Ready Skills I				
Code	BOT 205T				
Course Type	SEC	L	T	P	Credit
Pre-Requisite		2	0	0	2
Course Objective	Apply time management techniques to prioritize and organize tasks efficiently. Collaborate effectively in teams by building positive relationships and enhancing quality. Use critical thinking to solve problems creatively and make informed decisions.				
Course Outcomes					
CO1	Apply time management techniques to organize and prioritize tasks efficiently.				
CO2	Work effectively in teams by understanding the dynamics, building constructive relationships, and recognizing key factors contributing to quality improvement.				
CO3	Use critical thinking to solve problems systematically and creatively, and make informed decisions in work and personal settings.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	Time Management: Introduction to time management, Importance of time management, Time management matrix, How to manage time	10 Hours	CO1
2	Teamwork and Quality Consciousness Introduction to teamwork, Importance of teamwork, Basic elements of teamwork, Building positive relationships, Quality, Strategies to improve quality	10 Hours	CO2
3	Problem-solving and Decision Making Skills Critical thinking, Developing critical thinking mindset, Decisions, Effective decision-making process	10 Hours	CO3

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Suggested Readings

1. S P Dhanavel, English and Soft Skills, Orient BlackSwan
2. Gupta Seema, Soft Skills - Interpersonal and Intrapersonal Skills Development, V&S Publishers

Online Resources

1. <https://www.mindtools.com>
2. <https://www.skillsyouneed.com>

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	-	-	-	-	1	-	2	2	-	-	3	3	-	2
CO2	-	-	-	-	1	-	2	3	-	-	2	2	-	3
CO3	1	-	1	-	1	1	2	2	-	1	3	3	-	2



Program	BAOTT				
Year	I	Semester		II	
Course Name	AI Tools				
Code	BOT 206T				
Course Type	VAC	L	T	P	Credit
Pre-Requisite		2	1	0	3
Course Objective	Understand fundamental concepts of artificial intelligence and the types of AI tools available. Explore common AI tools and platforms, learning their key features and real-world applications. Apply AI tools responsibly while recognizing ethical considerations in their usage.				
Course Outcomes					
CO1	Explain the basics of AI and identify different categories of AI tools.				
CO2	Demonstrate familiarity with popular AI platforms and describe their functionalities.				
CO3	Evaluate ethical challenges in AI and practice responsible use of AI technologies.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	Introduction to Artificial Intelligence and AI Tools Overview of Artificial Intelligence (AI) concepts, Types of AI tools and their applications, Basics of machine learning and data processing	15 Hours	CO1
2	Common AI Tools and Platforms Introduction to popular AI tools (e.g., chatbots, image recognition, speech recognition), Features and functionalities of AI platforms, Use cases across industries	15 Hours	CO2
3	Practical Applications and Ethical Considerations How to use AI tools effectively in everyday tasks, Benefits and challenges of AI adoption, Ethical issues and responsible AI use	15 Hours	CO3







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Suggested Readings

1. Russell, Stuart, and Peter Norvig. 2021. Artificial Intelligence: A Modern Approach. 4th ed. Upper Saddle River, NJ: Pearson.
2. Nilsson, Nils J. 2014. Principles of Artificial Intelligence. San Francisco, CA: Morgan Kaufmann.
3. Marr, Bernard. 2020. Artificial Intelligence in Practice: How 50 Successful Companies Used AI and Machine Learning to Solve Problems. New York: Wiley.
4. Floridi, Luciano. 2019. The Ethics of Artificial Intelligence. Oxford: Oxford University Press.

Online Resources

1. <https://ai.google.dev/>
2. <https://github.com/microsoft/AI-For-Beginners>

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	-	-	-	-	-	-	-	-	2	-	1	2	-	1
CO2	-	-	-	-	-	-	-	-	3	-	2	2	-	1
CO3	-	-	-	-	-	-	3	1	2	-	2	3	-	1



Program	BAOTT				
Year	I	Semester		II	
Course Name	Basic Operation Theatre Equipment, Drugs and Techniques Lab				
Code	BOT 201P				
Course Type	DSC	L	T	P	Credit
Pre-Requisite		0	0	6	3
Course Objective	To equip students with the skills to appropriately position patients and prepare the surgical site while maintaining aseptic conditions. To develop the ability to identify and use surgical tools, thread needles, and operate common OT equipment during surgical assistance. To train students in safe drug administration (IV, IM, SC), urinary catheterization, and surgical drain management using sterile techniques.				
Course Outcomes					
CO1	Demonstrate the ability to assist in preoperative patient preparation, including proper positioning, site preparation, and aseptic draping for various surgical procedures.				
CO2	Identify, handle, and utilize surgical instruments, sutures, needles, and OT equipment safely and efficiently.				
CO3	Administer injections and manage surgical interventions like catheterization and drainage systems following standard safety protocols				

S. No.	List of Experiments	
1	Position patients appropriately for various types of surgeries.	CO1
2	Prepare the surgical site following aseptic techniques.	CO1
3	Identify and drape the surgical area using appropriate drapes.	CO1
4	Identify sutures, needles, and threads, and thread needles into sutures accurately.	CO2
5	Identify and operate different types of equipment used in the operation theater.	CO2
6	Administer drugs via the intravenous route following proper protocol.	CO3
7	Administer subcutaneous and intramuscular injections safely and effectively.	CO3
8	Identify and manage different types of surgical drainage systems.	CO3

9	Perform urinary catheterization adhering to sterile procedures.	CO3
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Suggested Readings

1. M.P. Sharma, Operation Theater Techniques and Management, AITBS Publishers
2. Ajay Yadav, Short Textbook of Anesthesia, Jaypee Brothers Medical Publishers.
3. K.D. Tripathi, Essentials of Medical Pharmacology, Jaypee Brothers Medical Publisher
4. Arora Yadav, Synopsis of Medical Instruments and Procedures, Jaypee Brothers Medical Publishers.
5. Berry, Edna Carnelia & Mary Louise Kohn, Introduction to OR Techniques, 4th edition

Online Resources

1. <https://www.ncbi.nlm.nih.gov/books/NBK591820/>
2. <https://apps.who.int/iris/handle/10665/44186>
3. <https://www.cdc.gov/infection-control/hcp/disinfection-sterilization/summary-recommendations.html>
4. <https://open.lib.umn.edu/pharmacology/>

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2	3	2	2	3	2	2	2	-	2	3	2	3	2
CO2	3	3	2	3	2	2	2	2	-	2	3	2	3	2
CO3	3	2	3	2	2	3	2	2	-	2	3	2	3	2

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Program	BAOTT				
Year	I	Semester		II	
Course Name	Infection Control and Biomedical Waste Management Lab				
Code	BOT 202P				
Course Type	DSC	L	T	P	Credit
Pre-Requisite		0	0	4	2
Course Objective	Demonstrate effective hand hygiene through proper handwashing and hand rub techniques to prevent infections. Perform correct donning and doffing of PPE to ensure safety and infection control. Apply biomedical waste segregation using appropriate color-coded bins in compliance with regulations.				
Course Outcomes					
CO1	Demonstrate proper hand hygiene techniques through effective handwashing and handrub methods to prevent healthcare-associated infections.				
CO2	Perform correct donning and doffing procedures for Personal Protective Equipment (PPE) ensuring infection control and personal safety in clinical settings.				
CO3	Apply biomedical waste segregation protocols by identifying waste categories and using appropriate color-coded bins in compliance with safety and regulatory standards.				

S. No.	List of Experiments	
1	Perform method of handwashing	CO1
2	Perform method of handrub	CO1
3	Perform donning and doffing of PPE	CO2
4	Segregation of biomedical waste	CO3

Suggested Readings

1. S. Apruba Sastry, R. Deepashree, Essentials of Hospital Infection Control, Jaypee Brothers Medical Publishers, 2019








2. Singh Anantpreet, Kaur Sukhjit, Biomedical Waste Disposal, Jaypee Brothers Medical Publishers, 2012

Online Resources

1. <https://www.cdc.gov>
2. <https://main.icmr.nic.in>
3. <https://www.ncbi.nlm.nih.gov/books>
4. <https://www.who.int/infection-prevention>

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2	3	-	-	2	2	3	1	-	2	2	2	3	1
CO2	2	3	-	-	2	2	3	1	-	2	2	2	3	1
CO3	2	3	-	-	-	-	3	1	-	2	2	2	3	1







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Program	BAOTT				
Year	II	Semester		III	
Course Name	Advanced Operation Theatre Equipment, Drugs and Techniques				
Code	BOT 301T				
Course Type	DSC	L	T	P	Credit
Pre-Requisite		3	1	0	4
Course Objective	Understand the types of anesthesia, emergency drugs, and airway management techniques essential for safe surgical care. Gain proficiency in operating advanced OT equipment and implementing emergency protocols to ensure patient safety. Learn foundational concepts of microbiology, immunology, and pathology to aid in the diagnosis and management of diseases. Identify and understand the purpose, steps, and OT role in various surgical procedures across multiple specialties.				
Course Outcomes					
CO1	To explain the different types of anesthesia, complications associated with them along with the procedure and purpose of endotracheal intubation.				
CO2	Understand the use of surgical equipment, sterilization methods, and emergency protocols, including patient transfer guidelines.				
CO3	Gain an understanding core concepts of microbiology, immunology, and pathology, including infection, inflammation, cellular injury, and neoplasia, to support disease diagnosis and management.				
CO4	Assist in different surgeries and have an understanding of the different equipment and processes involved in them				

Module	Course Contents	Contact Hrs.	Mapped CO
1	Anesthesia and Operative Drugs: Anesthesia and its types, Regional anesthesia & Drug: GA Complications and Management, Emergency condition and drug, Endotracheal intubation	15 Hours	CO1
2	Advanced OT Equipment and Emergency Protocol: Ventilator, C-Arm, ECG, Flash Sterilization, Specialized Surgical Equipment and Instruments: Intubation, Orthopedic,	15 Hours	CO2

	Laposcopic & Gynaecological, Microsurgical instruments, Electrocautery; Hospital Emergency Protocols and Patient Transfer Criteria		
3	Microbiology, Immunology and Pathology: Introduction to microbiology, Bacteriology, Mycology, Parasitology, Virology, Importance of Immunology, Introduction to Immunology, Acquired immunity, Antigen antibody, Hypersensitivity, Introduction to Pathology, Pathology Basics, Cellular injury and adaptation, Neoplasia, Inflammation, Healing	15 Hours	CO3
4	Common Surgeries & Procedures: Ear surgeries, Nose surgeries, Throat surgeries, Digestive system surgeries, other surgeries - Cataract surgery, other surgeries - Splenectomy, Endoscopy, Colonoscopy & Cystoscopy, Coronary artery disease (CAD), Carotid artery disease, Pacemaker & Heart valve surgery, Orthopedic surgeries, Renal Surgeries, Nephrectomy, Brain tumor surgery & traumatic brain injury	15 Hours	CO4

Suggested Readings

1. Operation Theater Techniques and Management, M.P. Sharma, AITBS Publishers
2. Short Textbook of Anesthesia, Ajay Yadav, Jaypee Brothers Medical Publishers
3. Synopsis of Medical Instruments and Procedures, Arora Yadav, Jaypee Brothers Medical Publishers

Online Resources

1. <https://www.cdc.gov/niosh/docs/2007-151/pdfs/2007-151.pdf>
2. <https://www.cdc.gov/infection-control/media/pdfs/guideline-disinfection-h.pdf>
3. <https://www.ncbi.nlm.nih.gov/books/NBK7627/>
4. <https://sjr-publishing.com/wp-content/uploads/2019/03/The-Role-of-Operating-Room-and-Anesthesia-Technicians-in-Ensuring-Surgical-Success-and-Patient-Safety-2.pdf>

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	2	3	2	2	3	2	1	-	2	3	2	3	1
CO2	2	3	2	3	3	2	3	2	-	2	3	2	3	2
CO3	3	2	2	2	1	2	2	1	-	3	2	2	2	1

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CO4	2	3	2	3	3	3	2	2	-	2	3	2	3	2
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Program	BAOTT				
Year	II	Semester		III	
Course Name	Intensive Care Unit				
Code	BOT 302T				
Course Type	DSC	L	T	P	Credit
Pre-Requisite		2	1	0	3
Course Objectives	Understand the structure, roles, and equipment of ICU and PACU settings, and develop skills for managing post-operative care and complications. Gain familiarity with essential ICU procedures, aseptic practices, and commonly used equipment such as tracheostomy and infusion pumps. Develop the ability to operate respiratory support devices and manage medical gas systems essential for patient care. Learn to assist with and interpret cardiovascular and neurological procedures like defibrillation, cardioversion, EEG, and EMG				
Course Outcomes					
CO1	Demonstrate understanding of ICU and PACU roles, equipment, and management, including effective handling of post-operative care and complications.				
CO2	Apply knowledge of ICU asepsis, perform tracheostomies, and use infusion pumps and arterial blood gas analysis				
CO3	Manage oxygen therapy, spirometry, nebulizers, and medical gas pipelines in critical care				
CO4	Perform cardiovascular interventions like defibrillation and monitoring of neurological functions				

Module	Course Contents	Contact Hrs.	Mapped CO
1	ICU and PACU Introduction to ICU, Different types of specialized ICUs, Equipment used in ICU, PACU, Skill and knowledge of PACU nurses, Management of potential complications around operations	11 Hours	CO1
2	Introduction and Management of Intensive Care Unit (ICU):	12 Hours	CO2

	Generic requirements in ICU, Asepsis in ICU, Tracheostomy, Arterial Blood Gas, Infusion Pump		
3	Respiratory and Medical Gas Management: Oxygen Therapy, Spirometer, Nebulizer, Surgical Suction, Medical Gas Pipeline	11 Hours	CO3
4	Cardiovascular and Neurological Monitoring: Cardioversion, Synchronized electrical cardioversion, Defibrillation, EEG, EMG	11 Hours	CO4

Suggested Readings

1. Synopsis of Medical Instruments and Procedures, Arora Yadav, Jaypee Brothers Medical Publishers
2. Introduction to OR Techniques, Berry, Edna Carnelia & Mary Louise Kohn, 4th edition

Online Resources:

1. <https://www.asahq.org/standards-and-practice-parameters/standards-for-postanesthesia-care>
2. <https://www.cdc.gov/infection-control/hcp/basics/standard-precautions.html>
3. <https://www.ncbi.nlm.nih.gov/books/NBK593208/>
4. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9250595/>

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3	2	3	3	2	2	2	-	2	3	2	3	2
CO2	3	3	3	3	2	3	2	2	-	2	3	2	3	2
CO3	3	2	2	2	2	3	2	1	-	2	3	2	3	1
CO4	3	2	3	2	2	3	2	2	-	2	3	2	3	2

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Program	BAOTT				
Year	II	Semester		III	
Course Name	Medical Law and Ethics				
Code	BOT 303T				
Course Type	MD	L	T	P	Credit
Pre-Requisite		2	1	0	3
Course Objective	Explain the principles and importance of medical ethics and demonstrate professionalism through adherence to a healthcare code of conduct. Describe types of consent, their significance, and the management of medico-legal cases with legal compliance. Differentiate between malpractice and negligence and understand their ethical and legal implications in medical practice.				
Course Outcomes					
CO1	Explain the principles, need, and importance of medical ethics, and demonstrate professionalism through adherence to a proper code of conduct in healthcare practice.				
CO2	Explain types of consent and their importance, and understand medico-legal cases including proper consent and legal compliance in medical practice.				
CO3	Explain the difference between malpractice and negligence, and understand their ethical and legal implications.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	Medical Ethics and Professional Conduct Medical ethics, Need and importance of medical ethics, Principles of medical ethics, Professionalism, Code of conduct and its importance, Attributes of code of conduct	15 Hours	CO1
2	Consent and Medico-Legal Understanding Consent, Types of consent, Importance of consent, Medico Legal Cases, Consent and management of MLC	15 Hours	CO2
3	Medical Malpractice and Negligence: Medical malpractice and negligence, Malpractice vs negligence, Ethical vs legal	15 Hours	CO3

Suggested Readings

1. B. Sandeepa Bhat, Reflections on Medical Law and Ethics in India, Eastern Law House
2. Subrata Sharma, Medical Ethics Challenges and prospects in India

Online Resources

1. <https://imlindia.com>

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	1	1	-	-	1	-	3	2	2	-	2	2	1	2
CO2	1	1	-	-	-	-	3	2	2	-	2	2	1	2
CO3	1	-	-	-	-	-	3	1	2	-	2	2	-	1



Program	BAOTT				
Year	II	Semester		III	
Course Name	Sales and Marketing				
Code	BOT 304T				
Course Type	AEC	L	T	P	Credit
Pre-Requisite		2	1	0	3
Course Objective	Understand the key elements, types, and processes involved in marketing health services. Analyze market segmentation, targeting, and positioning strategies relevant to healthcare Practice sales techniques and address challenges within healthcare marketing scenarios.				
Course Outcomes					
CO1	Explain the elements, types, and process of marketing in health services, including market segmentation benefits and bases.				
CO2	Develop effective market targeting and positioning strategies for health services.				
CO3	Describe the sales process and apply techniques for closing sales while addressing challenges in healthcare marketing.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	Fundamentals of Health Services Marketing: Marketing in health services, Elements of marketing, Types of marketing mix, Process of marketing of health services, Market segmentation principles, benefits and bases for segmentation in healthcare	15 Hours	CO1
2	Market Targeting and Positioning in Healthcare: Market targeting and targeting strategies, Marketing positioning and positioning strategies.	15 Hours	CO2
3	Sales Techniques: Introduction to sales, sales processes, closing techniques, and challenges in sales.	15 Hours	CO3

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Suggested Readings

1. Marketing Management, Philip Kotler and Kevin Lane Keller
2. Sales Management: Building Customer Relationships and Partnerships, Joseph F. Hair, Rolph E. Anderson, and Rajiv Mehta

Online Resources

1. <https://www.cancc.gov/publications/dictionaries/cancer-terms/del/copy>

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	1	-	-	-	-	-	1	2	2	-	2	2	-	3
CO2	1	-	-	-	-	-	1	2	2	-	2	2	-	3
CO3	1	-	-	-	-	-	1	3	2	-	2	2	-	3



Program	BAOTT				
Year	II	Semester		III	
Course Name	Job Ready Skills II				
Code	BOT 305T				
Course Type	SEC	L	T	P	Credit
Pre-Requisite	Job Ready Skills I	2	0	0	2
Course Objective	Develop a positive mindset and apply emotional intelligence to manage interpersonal relationships effectively. Utilize stress management techniques and enhance negotiation skills for professional growth. Foster a result-oriented mindset to accomplish personal and organizational objectives.				
Course Outcomes					
CO1	Cultivate a positive mindset and demonstrate emotional intelligence to manage relationships effectively.				
CO2	Apply stress management techniques and develop negotiation skills for professional success.				
CO3	Adopt a result-oriented approach to achieve personal and organizational goals.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	Positive Mindset and Emotional Intelligence: Introduction to positive mindset, Importance of positive mindset, Developing a positive mindset, Emotional quotient, Components of emotional intelligence	10 Hours	CO1
2	Stress Management and Negotiation Skills. Stress, Ways to manage stress, Negotiation and its outcomes, Ways to develop effective negotiation skills	10 Hours	CO2
3	Result Orientation: Introduction to result orientation, Ways to develop result oriented mindset	10 Hours	CO3

Suggested Readings








1. Emotional Intelligence 2.0, Travis Bradberry and Jean Greaves
2. Mindset: The New Psychology of Success, Carol S. Dweck
3. S P Dhanavel, English and Soft Skills, Orient BlackSwan
4. Gupta Seema, Soft Skills - Interpersonal and Intrapersonal Skills Development, V&S Publishers

Online Resources

1. <https://www.mindtools.com>
2. <https://www.skillsyouneed.com>

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	-	-	-	-	-	-	2	3	-	-	3	2	-	3
CO2	-	-	-	-	-	-	2	3	-	-	3	2	-	3
CO3	-	-	-	-	-	-	1	3	-	-	3	3	-	3

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Program	BAOTT				
Year	II	Semester		III	
Course Name	Advanced Operation Theatre Equipment, Drugs and Techniques Lab				
Code	BOT 301P				
Course Type	DSC	L	T	P	Credit
Pre-Requisite		0	0	8	4
Course Objective	Understand the types of anesthesia, emergency drugs, and airway management techniques essential for safe surgical care. Gain proficiency in operating advanced OT equipment and implementing emergency protocols to ensure patient safety. Learn foundational concepts of microbiology, immunology, and pathology to aid in the diagnosis and management of diseases. Identify and understand the purpose, steps, and OT role in various surgical procedures across multiple specialties.				
Course Outcomes					
CO1	To explain the different types of anesthesia, complications associated with them along with the procedure and purpose of endotracheal intubation.				
CO2	Understand the use of surgical equipment, sterilization methods, and emergency protocols, including patient transfer guidelines.				
CO3	Gain an understanding core concepts of microbiology, immunology, and pathology, including infection, inflammation, cellular injury, and neoplasia, to support disease diagnosis and management.				
CO4	Assist in different surgeries and have an understanding of the different equipment and processes involved in them				

S. No.	List of Experiments	
1	Explain the types of anesthesia and their clinical applications.	CO1
2	Prepare and organize instruments required for endotracheal intubation.	CO1
3	Implement emergency protocols and assist in patient transfer during critical situations.	CO2
4	Identify and utilize equipment specific to organ-system-related surgeries.	CO4
5	Demonstrate the steps involved in common surgical procedures.	CO4

6	Operate and calibrate advanced operation theater (OT) equipment effectively.	CO2
7	Prepare instruments for flash sterilization	CO2

Suggested Readings

1. Goldsby RA, Kindt T, Osborne BA. Kuby's Immunology. 6th edition W.H. Freeman and Company, New York, 2007
2. Adelberg's Medical Microbiology. 26th edition. McGraw Hill Publication.
3. Ochei J. & Kolhatkar A. Medical Laboratory Science: Theory & Practice, Tata McGraw Hill Pub. (ISBN: 9780074632239) (2000)
4. Operation Theater Techniques and Management, M.P. Sharma, AITBS Publishers
5. Short Textbook of Anesthesia, Ajay Yadav, Jaypee Brothers Medical Publishers
6. Synopsis of Medical Instruments and Procedures, Arora Yadav, Jaypee Brothers Medical Publishers

Online Resources

1. <https://www.cdc.gov/niosh/docs/2007-151/pdfs/2007-151.pdf>
2. <https://www.cdc.gov/infection-control/media/pdfs/guideline-disinfection-h.pdf>
3. <https://www.ncbi.nlm.nih.gov/books/NBK7627/>
4. <https://sjr-publishing.com/wp-content/uploads/2019/03/The-Role-of-Operating-Room-and-Anesthesia-Technicians-in-Ensuring-Surgical-Success-and-Patient-Safety-2.pdf>

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	2	3	2	2	3	2	2	-	2	2	2	3	2
CO2	3	3	2	3	2	2	2	2	1	2	2	2	3	2
CO3	3	2	1	1	1	1	2	1	-	3	1	3	2	1
CO4	3	2	2	3	3	3	2	2	-	2	3	2	3	2

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Program	BAOTT				
Year	II	Semester		III	
Course Name	Intensive Care Unit Lab				
Code	BOT 302P				
Course Type	DSC	L	T	P	Credit
Pre-Requisite		0	0	6	3
Course Objective	Understand the structure, roles, and equipment of ICU and PACU settings, and develop skills for managing post-operative care and complications. Gain familiarity with essential ICU procedures, aseptic practices, and commonly used equipment such as tracheostomy and infusion pumps. Develop the ability to operate respiratory support devices and manage medical gas systems essential for patient care. Learn to assist with and interpret cardiovascular and neurological procedures like defibrillation, cardioversion, EEG, and EMG				
Course Outcomes					
CO1	Demonstrate understanding of ICU and PACU roles, equipment, and management, including effective handling of post-operative care and complications.				
CO2	Apply knowledge of ICU asepsis, perform tracheostomies, and use infusion pumps and arterial blood gas analysis				
CO3	Manage oxygen therapy, spirometry, nebulizers, and medical gas pipelines in critical care				
CO4	Perform cardiovascular interventions like defibrillation and monitoring of neurological functions				

S. No.	List of Experiments	
1	Identify and operate various oxygen delivery devices.	CO3
2	Handle and operate infusion pumps.	CO2
3	Use and demonstrate the functionality of spirometers.	CO3
4	Operate and maintain nebulizers.	CO3
5	Apply techniques for suctioning in ICU and PACU settings.	CO1
6	Analyze and interpret arterial blood gas (ABG).	CO4

7	Perform tracheostomy care.	CO2
8	Perform cardioversion and defibrillation.	CO4

Suggested Readings

1. Synopsis of Medical Instruments and Procedures, Arora Yadav, Jaypee Brothers Medical Publishers
2. Introduction to OR Techniques, Berry, Edna Carnelia & Mary Louise Kohn, 4th edition

Online Resources

1. <https://www.asahq.org/standards-and-practice-parameters/standards-for-postanesthesia-care>
2. <https://www.cdc.gov/infection-control/hcp/basics/standard-precautions.html>
3. <https://www.ncbi.nlm.nih.gov/books/NBK593208/>
4. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4250595/>

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO 1	3	2	2	2	3	2	2	2	1	2	3	2	3	2
CO 2	3	3	3	2	2	3	2	2	-	2	3	2	3	2
CO 3	2	2	2	2	2	2	2	2	-	2	2	2	3	2
CO 4	2	2	3	2	2	3	2	2	-	3	3	2	3	2

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Program	BAOTT				
Year	II	Semester		IV	
Course Name	Assisted Feeding				
Code	BOT 401T				
Course Type	DSC	L	T	P	Credit
Pre-Requisite		3	1	0	4
Course Objective	Understand the indications, types, and ethical considerations of assisted feeding, including oral, enteral, and parenteral methods. Develop skills in handling equipment and performing procedures for various feeding methods, ensuring safety and accurate documentation. Recognize common complications in assisted feeding and apply strategies for effective postoperative care and rehabilitation. Monitor nutritional and fluid status, involve multidisciplinary care teams, and support patients and families in the assisted feeding process.				
Course Outcomes					
CO1	Understand the fundamental concepts and clinical indications of assisted feeding, and differentiate between oral, enteral, and parenteral methods to select appropriate techniques based on patient needs.				
CO2	Perform and assist in the procedures of NG tube feeding, PEG feeding, and parenteral nutrition using correct equipment and protocols.				
CO3	Recognize and manage complications related to assisted feeding, implementing relevant prevention and intervention strategies.				
CO4	Monitor patients receiving assisted feeding, provide education to patients and families, and collaborate effectively with the healthcare team.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	Assisted Feeding and its Types Definition and overview of assisted feeding, Indications for assisted feeding, Ethical and legal considerations, Oral assisted feeding, Enteral feeding: nasogastric (NG) tube, PEG feeding, Parenteral feeding: total parenteral nutrition (TPN), peripheral parenteral nutrition (PPN), Indications and contraindications for each type.	15 Hours	CO1

2	Equipment and Procedures: Equipment for oral, enteral, and parenteral feeding, Step-by-step procedures for NG tube insertion, PEG feeding, and parenteral nutrition, Documentation and safety checks	15 Hours	CO2
3	Complications and Management: Post-operative patient monitoring and care, Managing post-surgical complications, Importance of patient rehabilitation and follow-up	15 Hours	CO3
4	Patient Care and Monitoring: Monitoring nutritional status and fluid balance, Patient and family education, Multidisciplinary team roles in assisted feeding, Psychological support and rehabilitation	15 Hours	CO4

Suggested Readings

1. Clinical Nutrition and Dietetics, Sowmya R., Elsevier India

Online Resources

1. <https://www.ncbi.nlm.nih.gov/books/NBK532876/>
2. <https://www.ncbi.nlm.nih.gov/books/NBK559036/>
3. <https://nutritioncare.org/clinical-resources/guidelines-standards/>
4. <https://www.ncbi.nlm.nih.gov/books/NBK594494/>
5. <https://pubmed.ncbi.nlm.nih.gov/8321074/>

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	2	2	2	3	2	2	2	-	2	2	2	2	2
CO2	3	3	2	3	3	2	2	2	-	2	3	2	3	2
CO3	3	3	3	2	2	3	3	2	-	3	3	2	3	2
CO4	2	2	2	2	3	2	3	3	2	2	2	2	2	3

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Program	BAOTT				
Year	II	Semester		IV	
Course Name	Specialized Surgeries I				
Code	BOT 402T				
Course Type	DSC	L	T	P	Credit
Pre-Requisite		3	1	0	4
Course Objective	Explain the scope, indications, and fundamental principles of specialized surgeries across dental, dermal, ophthalmic, pediatric, and geriatric/adult domains. Demonstrate the ability to conduct thorough preoperative assessment, risk evaluation, and patient preparation for various specialized surgical procedures. Apply principles of aseptic technique, sterilization, and infection control tailored to different specialized surgical environments. Identify, handle, and maintain general and specialty-specific surgical instruments, and participate in efficient operating room management.				
Course Outcomes					
CO1	Describe the scope and classification of specialized surgeries and perform comprehensive preoperative patient assessments, emphasizing the role of multidisciplinary collaboration in surgical care.				
CO2	Demonstrate correct aseptic techniques and implement effective sterilization and infection control protocols in the operating room.				
CO3	Identify, handle, and maintain surgical instruments and equipment, and participate in efficient operating room management.				
CO4	Deliver appropriate postoperative care, identify and manage complications, and coordinate patient rehabilitation and follow-up.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	Introduction to Specialized Surgery & Preoperative Preparation: Definition and scope of specialized surgeries, Classification of surgical specialties, Roles of the multidisciplinary surgical team, Patient evaluation, risk assessment, and preoperative	15 Hours	CO1








	investigations, Informed consent and patient education, Psychological preparation of the patient		
2	Asepsis, Sterilization, and Infection Control: Principles and practices of aseptic techniques, Sterilization methods: physical and chemical, Disinfection techniques, Infection control protocols and OT hygiene practices	15 Hours	CO2
3	Surgical Equipment and Operating Room Management: General and specialty-specific surgical instruments, Equipment care, cleaning, and maintenance, Operating room setup and zoning, Workflow optimization and role clarity within the OT	15 Hours	CO3
4	Postoperative Care and Complication Management: Immediate postoperative monitoring and interventions, Management of post-surgical complications, Patient discharge planning and follow-up care, Rehabilitation and reintegration support	15 Hours	CO4

Suggested Readings

1. S Das, A Concise Textbook of Surgery, 11th Edition, Author Self, 2024.
2. Sriram Bhat M, SRB's Manual of Surgery, 6th Edition, Jaypee Brothers Medical Publishers, 2022.
3. R Dayananda Babu, Clinical Surgery Pearls, 3rd Edition, Jaypee Brothers Medical Publishers, 2018.
4. Shenoy K Rajgopal, Manipal Manual of Surgery, 6th Edition, CBS Publishers & Distributors, 2024.

Online Resources

1. <https://www.bjanaesthesia.org.uk/article/S0007-0912%2824%2900429-X/fulltext>
2. <https://www.facs.org/about-ac/s/statements/statements-on-principles/>
3. <https://www.cdc.gov/infection-control/hcp/surgical-site-infection/index.html>
4. <https://www.ncbi.nlm.nih.gov/articles/PMC9714984/>

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	2	2	2	3	2	2	3	1	2	3	2	2	3
CO2	2	3	2	2	2	2	3	2	-	2	2	2	3	2
CO3	2	3	2	3	2	2	2	2	1	2	2	2	3	2
CO4	3	2	2	2	3	3	2	3	1	2	3	2	2	3

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Program	B.AOTT				
Year	II	Semester	IV		
Course Name	Specialized Surgeries II				
Code	BOT 403T				
Course Type	DSC	L	T	P	Credit
Pre-Requisite		2	2	0	4
Course Objectives	Explain the scope, indications, and fundamental principles of specialized surgeries across dental, dermal, ophthalmic, pediatric, and geriatric/adult domains. Demonstrate the ability to conduct thorough preoperative assessment, risk evaluation, and patient preparation for various specialized surgical procedures. Apply principles of aseptic technique, sterilization, and infection control tailored to different specialized surgical environments. Identify, handle, and maintain general and specialty-specific surgical instruments, and participate in efficient operating room management.				
Course Outcomes					
CO1	Describe the indications, procedures, and multidisciplinary approach in dental, dermal, ophthalmic, pediatric, and geriatric/adult common surgeries.				
CO2	Perform preoperative patient assessment, including risk stratification, investigations, informed consent, and psychological support for specialized surgeries.				
CO3	Demonstrate correct aseptic techniques and implement effective sterilization and infection control protocols for different surgical specialties.				
CO4	Identify and operate specialty-specific surgical instruments and equipment, ensuring proper care, maintenance, and optimal operating room workflow.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	Dental Surgery: Overview of dental surgical procedures: extractions, impactions, implants, maxillofacial surgery, Indications and contraindications for common dental surgeries, Preoperative	15 Hours	CO1

	assessment and patient preparation in dental surgery, Postoperative care and management of complications in dental surgery		
2	Dermal (Dermatological) Surgery: Principles of dermatological surgery: excision, biopsies, grafts, cosmetic procedures, Indications for skin and soft tissue surgeries, Equipment and aseptic techniques in dermal surgery, Wound care, scar management, and post-procedure follow-up	15 Hours	CO2
3	Ophthalmic Surgery: Common ophthalmic surgeries: cataract, glaucoma, retinal procedures, LASIK, Preoperative evaluation and preparation for eye surgeries, Specialized ophthalmic instruments and their care, Postoperative protocols and complication management in ophthalmic surgery	15 Hours	CO3
4	Pediatric, Geriatric and Adult Common Surgeries: Surgery: Overview of pediatric surgical procedures: appendectomy, hernia repair, circumcision, pyloromyotomy, correction of congenital anomalies, Unique considerations in pediatric surgical patients: anesthesia, fluid management, pain control, Preoperative and postoperative care in children, Family education and psychological support in pediatric surgery, Surgical considerations in elderly patients: risk assessment, comorbidities, and recovery, Common surgeries in geriatric patients: hernia repair, cataract, orthopedic procedures, skin lesion excisions, Multidisciplinary approach in geriatric surgery, Postoperative care, rehabilitation, and prevention of complications in older adults	15 Hours	CO4

Suggested Readings

1. S Das, A Concise Textbook of Surgery, 11th Edition, Author Self, 2024.
2. Sriram Bhat M, SRB's Manual of Surgery, 6th Edition, Jaypee Brothers Medical Publishers, 2022.
3. Harsh Mohan, Textbook of Pathology, 8th Edition, Jaypee Brothers Medical Publishers, 2022.
4. Shenoy K Rajgopal, Manipal Manual of Surgery, 6th Edition, CBS Publishers & Distributors, 2024.
5. R Dayananda Babu, Clinical Surgery Pearls, 3rd Edition, Jaypee Brothers Medical Publishers, 2018.

Online Resources

1. <https://www.bjanaesthesia.org.uk/article/S0007-0912%2824%2900429-X/fulltext>
2. <https://www.facs.org/about-ac/s/statements/statements-on-principles/>
3. <https://www.cdc.gov/infection-control/hcp/surgical-site-infection/index.html>
4. <https://www.ncbi.nlm.nih.gov/articles/PMC9714934/>

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	2	2	2	3	2	2	3	1	2	3	2	2	3
CO2	2	2	2	2	3	3	3	2	1	2	3	2	2	2
CO3	2	3	2	2	2	2	3	2	-	2	2	2	3	2
CO4	3	3	2	3	2	2	2	3	1	2	3	2	3	3







Program	BAOTT				
Year	II	Semester		IV	
Course Name	Diet and Nutrition				
Code	BOT 404T				
Course Type	DSC	L	T	P	Credit
Pre-Requisite		2	0	0	2
Course Objective	To introduce the fundamentals of nutrition, including nutrients, energy balance, and the components of a balanced diet. To understand the principles of therapeutic diets and their role in effective weight management and debunking nutrition myths. To explore the role of nutrition in managing respiratory, cardiovascular, and digestive disorders. To understand dietary approaches for managing renal and neurological diseases.				
Course Outcomes					
CO1	Understand the importance of macronutrients, micronutrients, and energy balance in promoting overall health through a well-balanced diet.				
CO2	Discuss the importance of therapeutic diets and strategies for weight management.				
CO3	Understand the role of nutrition in managing various chronic and acute diseases of respiratory, circulatory and digestive system.				
CO4	Discuss the importance of nutrition in managing various chronic and acute diseases of renal and neurological diseases.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	Basics of Nutrition: Importance of Diet and Nutrition, Introduction to macronutrients, Overview of micronutrients, Calorie and Healthy Diet, Factors Influencing Energy Balance, Components of a Balanced Diet	7 Hours	CO1
2	Therapeutic Diets and Weight Management: Therapeutic diet: definition, types, and applications, Common myths about nutrition, Nutrition in weight management	7 Hours	CO2

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3	Nutrition in Disease Management I: Nutrition in respiratory diseases, Cardiovascular diseases, Digestive system diseases	8 Hours	CO3
4	Nutrition in Disease Management II: Nutrition in renal diseases, Nutrition in neurological diseases	8 Hours	CO4

Suggested Readings

1. Textbook of Dietetics, Sreevani R, Jaypee Brothers Medical Publishers
2. Therapeutic Diets, S. R. Joshi, Jaypee Brothers Medical Publishers
3. Nutrition and Dietetics for Nurses, Reena R, Jaypee Brothers Medical Publishers

Online Resources

1. <https://health.osu.edu/wellness/exercise-and-nutrition/micronutrients-vs-macronutrients>
2. https://www.cdss.ca.gov/.../Types_of_Therapeutic_Diets.pdf
3. https://www.nutrition.va.gov/Weight_Management.asp
4. <https://medlineplus.gov/weightcontrol.html>
5. <https://www.ncbi.nlm.nih.gov/books/NBK574576/>

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	1	1	-	-	-	2	-	-	2	2	2	-	-
CO2	2	1	1	-	1	-	2	-	-	2	2	2	-	-
CO3	3	1	2	-	2	-	2	-	-	3	2	2	-	-
CO4	3	1	2	-	2	-	2	-	-	3	2	2	-	-

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Program	BAOTT				
Year	II	Semester		IV	
Course Name	Leadership Skills for Business Success				
Code	BOT 405T				
Course Type	AEC	L	T	P	Credit
Pre-Requisite		2	0	0	2
Course Objective	To develop a strong sense of ownership and responsibility, encouraging learners to be accountable and proactive in both personal and professional settings while promoting adaptability through a growth mindset. To equip learners with interpersonal and leadership skills, including conflict resolution, openness to feedback, initiative-taking, strategic thinking, and mentoring in diverse environments. To foster an entrepreneurial mindset, nurturing a bias for action and enhancing creative problem-solving abilities needed for innovation and success in dynamic contexts.				
Course Outcomes					
CO1	Demonstrate ownership and a growth mindset by taking initiative, embracing challenges, adapting to change, and being accountable for tasks.				
CO2	Apply effective interpersonal and leadership skills by managing conflicts constructively, showing openness to feedback, mentoring others, and thinking strategically.				
CO3	Exhibit entrepreneurial thinking by taking proactive action and solving problems innovatively in personal and professional contexts.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	Personal Ownership and Growth Mindset: Ownership, Taking ownership, Ways to develop ownership, Fixed mindset vs Growth mindset, Ways to develop a growth mindset, Adaptability	10 Hours	CO1
2	Conflict and Leadership Skills: Conflict, Types of conflicts, Ways to manage conflicts, Openness to feedback, Taking initiative, Strategic thinking skills, Mentoring skills	10 Hours	CO2

3	Entrepreneurial Mindset and Problem Solving Entrepreneurial mindset: bias for action, Importance of problem-solving in leadership and innovation, Integrating ownership and growth mindset into entrepreneurial thinking	10 Hours	CO3
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Suggested Readings

1. The Five Dysfunctions of a Team: A Leadership Fable, Patrick Lencioni
2. Getting Things Done: The Art of Stress-Free Productivity, David Allè

Online Resources

1. <https://www.mindtools.com>
2. <https://www.skillsyouneed.com>

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	-	-	-	-	-	2	2	3	-	-	3	3	-	3
CO2	-	1	-	-	-	2	3	3	-	-	3	3	-	3
CO3	-	-	-	-	-	2	2	2	-	-	3	3	-	2

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Program	BAOTT				
Year	II	Semester		IV	
Course Name	Assisted Feeding Lab				
Code	BOT 401P				
Course Type	DSC	L	T	P	Credit
Pre-Requisite		0	0	8	4
Course Objective	Demonstrate safe and effective techniques for assisting patients with oral feeding, including correct positioning, food consistency modification, and aspiration prevention. Perform NG tube insertion, verify correct placement, and administer enteral feeds using aseptic technique. Prepare and set up equipment for parenteral nutrition, ensuring aseptic technique and correct line connection.				
Course Outcomes					
CO1	Demonstrate proficiency in inserting and managing a nasogastric (NG) tube for enteral feeding in simulated environments.				
CO2	Perform safe and accurate parenteral nutrition administration following standard clinical protocols.				
CO3	Apply appropriate techniques for oral and enteral feeding while ensuring patient comfort, hygiene, and safety.				

S. No.	List of Experiments	
1	Oral Assisted Feeding Techniques	CO1
2	Perform nasogastric (NG) tube insertion and feeding procedures on models.	CO2
3	Practice administering parenteral nutrition in simulated settings.	CO3

Suggested Readings

1. Clinical Nutrition and Dietetics, Sowmya R., Elsevier India

Online Resources

1. <https://www.ncbi.nlm.nih.gov/books/NBK532876/>
2. <https://www.ncbi.nlm.nih.gov/books/NBK559036/>
3. <https://nutritioncare.org/clinical-resources/guidelines-standards/>
4. <https://www.ncbi.nlm.nih.gov/books/NBK594494/>








5. <https://pubmed.ncbi.nlm.nih.gov/8321074/>

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2	2	-	-	3	2	2	2	-	2	3	2	2	2
CO2	3	2	-	-	2	3	2	2	-	3	3	2	2	2
CO3	3	3	-	-	3	2	2	2	-	2	3	2	2	2

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Program	BAOTT				
Year	II	Semester		IV	
Course Name	Specialized Surgeries I Lab				
Code	BOT 402P				
Course Type	DSC	L	T	P	Credit
Pre-Requisite		0	0	4	2
Course Objective	Explain the scope, indications, and fundamental principles of specialized surgeries across dental, dermal, ophthalmic, pediatric, and geriatric/adult domains. Demonstrate the ability to conduct thorough preoperative assessment, risk evaluation, and patient preparation for various specialized surgical procedures. Apply principles of aseptic technique, sterilization, and infection control tailored to different specialized surgical environments. Identify, handle, and maintain general and specialty-specific surgical instruments, and participate in efficient operating room management.				
Course Outcomes					
CO1	Demonstrate effective sterilization and disinfection techniques for surgical instruments and equipment.				
CO2	Perform routine cleaning, care, and maintenance of OT equipment in compliance with infection control protocols.				
CO3	Set up the operating area and prepare patients for specialized surgeries, including positioning and draping.				
CO4	Observe and document post-operative care practices, ensuring adherence to standard recovery protocols.				

S. No.	List of Experiments	
1	Demonstrate proper sterilization procedures for surgical instruments.	CO1
2	Practice cleaning, care, and maintenance of surgical equipment.	CO2
3	Practice setting up the operating area for specialized surgeries.	CO2
4	Demonstrate patient preparation for surgery (e.g., positioning, draping).	CO3
5	Observe and record post-operative care protocols.	CO3








Suggested Readings

1. S Das, A Concise Textbook of Surgery, 11th Edition, Author Self, 2024.
2. Sriram Bhat M, SRB's Manual of Surgery, 6th Edition, Jaypee Brothers Medical Publishers, 2022.
3. R Dayananda Babu, Clinical Surgery Pearls, 3rd Edition, Jaypee Brothers Medical Publishers, 2018.
4. Shenoy K Rajgopal, Manipal Manual of Surgery, 6th Edition, CBS Publishers & Distributors, 2024.

Online Resources

1. <https://www.bjanaesthesia.org.uk/article/S0007-0912%2824%2900429-X/fulltext>
2. <https://www.facs.org/about-ac/s/statements/statements-on-principles/>
3. <https://www.cdc.gov/infection-control/hcp/surgical-site-infection/index.html>
4. <https://www.ncbi.nlm.nih.gov/articles/PMC9714984/>

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2	-	-	-	2	3	2	-	-	-	3	2	3	2
CO2	2	-	-	-	3	3	2	-	-	-	3	2	3	2
CO3	2	-	-	-	3	3	2	-	-	-	3	2	3	2
CO4	2	-	-	-	2	2	2	-	-	-	3	2	2	2



Program	BAOTT				
Year	III	Semester		V	
Course Name	Introduction to Operation Theatre (OT) Protocols				
Code	BOT 501P				
Course Type	DSC	L	T	P	Credit
Pre-Requisite		0	0	24	12
Course Objective	To introduce students to the structural and functional organization of the Operation Theatre, OT protocols, staff roles, and patient movement. To ensure understanding of surgical asepsis and zoning in OT. To develop awareness of safety protocols, documentation, and communication. To promote effective teamwork and ethical conduct in surgical environments.				
Course Outcomes					
CO1	Describe the structure and function of a standard operation theatre and identify roles and responsibilities of various OT staff.				
CO2	Follow zoning and aseptic protocols within the OT.				
CO3	Prepare OT rooms and equipment for surgical procedures.				
CO4	Apply safety, ethical, and communication standards during OT operations.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	Overview of Operation Theatre, OT Team and Their Roles: Definition and purpose of OT, Types of operation theatres, Physical layout and ventilation systems, Surgeon, anesthetist, scrub nurse, circulating nurse, OT technician, Interprofessional communication and coordination	90 Hours	CO1
2	OT Zoning and Aseptic Protocols: Four zones of OT: protective, clean, sterile, disposal, Entry and exit protocols, Surgical hand scrubbing and gowning/gloving procedures	90 Hours	CO2

3	Pre- and Post-operative Room Preparation: OT cleaning procedures, Checking availability and functionality of surgical instruments, Preparing OT for elective and emergency surgeries	90 Hours	CO3
4	Safety and Ethical Protocols in OT: WHO Surgical Safety Checklist, Ethical responsibilities and confidentiality in OT	90 Hours	CO4

Suggested Readings

1. Ajay Yadav, Basics of Operation Theatre Services, Jaypee Brothers
2. C.K. Parikh, Textbook of Medical Jurisprudence and Toxicology, CBS Publishers
3. Berry & Kohn, Operating Room Technique, Elsevier
4. WHO, Surgical Safety Checklist and Guidelines
5. S. Raghuvanshi, Introduction to Operation Theatre Techniques, CBS Publishers

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2	3	—	2	2	—	1	3	—	2	2	1	3	3
CO2	1	3	—	2	—	—	2	2	—	1	2	1	3	2
CO3	1	2	—	3	2	—	—	2	1	2	2	1	3	2
CO4	—	2	—	2	2	2	3	3	2	—	3	2	2	3

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Program	BAOTT				
Year	III	Semester		V	
Course Name	Managing Medical Emergencies				
Code	BOT 502P				
Course Type	DSC	L	T	P	Credit
Pre-Requisite		0	0	12	6
Course Objective	Understand the importance of timely response in medical emergencies. Learn basic resuscitation and life support techniques. Identify signs of critical medical conditions. Explain first aid for common injuries.				
Course Outcomes					
CO1	Explain the basic principles of emergency medical response.				
CO2	Demonstrate understanding of CPR and life-saving protocols.				
CO3	Identify signs of common emergency conditions.				
CO4	Describe appropriate first aid interventions.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	Introduction to Emergency Medical Services: Definition and types of medical emergencies, assessment and prioritization, basic life support principle	45 Hours	CO1
2	CPR, Defibrillation, and Basic Life Support: Recognition and management of cardiac arrest, respiratory distress, airway obstruction.	45 Hours	CO2
3	Emergency Response to Bleeding and Shock: Types of trauma, hemorrhage control, types and stages of shock, initial stabilization.	45 Hours	CO3
4	Management of Burns, Fractures: Types of fractures and burns, principles of fracture immobilization and first aid, burn classification and treatment, pain management, infection prevention, and wound care.	45 Hours	CO4

Suggested Readings

1. American Heart Association, BLS Provider Manual
2. First Aid Manual, Indian Red Cross Society
3. Satish Chandra, Essentials of Emergency Medicine, Jaypee Brothers

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2	2	3	—	2	3	2	2	—	2	3	2	2	2
CO2	1	2	3	—	2	3	2	2	—	1	3	2	2	2
CO3	2	2	2	—	1	2	2	1	—	3	3	2	2	1
CO4	1	3	2	—	1	2	3	2	—	2	2	2	2	2

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Program	BAOTT				
Year	III	Semester		V	
Course Name	Summer Internship				
Code	BOT 503P				
Course Type	DSC	L	T	P	Credit
Pre-Requisite		0	0	4	2
Course Objectives	Apply theoretical knowledge in a real-world work environment to develop practical skills and professional competence. Enhance communication, teamwork, and problem-solving abilities through active participation in organizational tasks and projects. Understand workplace culture, ethics, and professional responsibilities to prepare for future career opportunities.				
Course Outcomes					
CO1	Demonstrate the ability to perform job-related tasks effectively by applying academic concepts to practical scenarios.				
CO2	Exhibit improved interpersonal and professional skills, including communication, collaboration, and adaptability in a work setting.				
CO3	Reflect on the internship experience to identify personal strengths, areas for improvement, and career goals.				



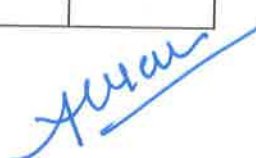



Program	BAOTT				
Year	III	Semester		VI	
Course Name	Infection Control Practices				
Code	BOT 601P				
Course Type	DSC	L	T	P	Credit
Pre-Requisite		0	0	24	12
Course Objectives	Understand the types of infectious agents, their modes of transmission, and the significance of standard precautions in healthcare. Apply sterilization and disinfection methods appropriately to ensure infection-free clinical environments. Demonstrate correct usage of PPE, including donning, doffing, and disposal, as part of infection prevention practices. Identify hospital-acquired infections (HAIs) and implement biomedical waste management techniques following regulatory standards.				
Course Outcomes					
CO1	Describe infectious agents and implement standard precautions such as hand hygiene and respiratory etiquette.				
CO2	Apply suitable sterilization and disinfection methods based on the type of equipment and setting.				
CO3	Demonstrate the correct selection, usage, and disposal of PPE in clinical situations.				
CO4	Identify common HAIs and manage biomedical waste using color-coded segregation and safe disposal practices.				

Module	Course Contents	Contact Hrs.	Mapped CO
I	Introduction to Infection and Standard Precautions: Overview of infectious agents (bacteria, viruses, fungi, parasites), modes of transmission (contact, droplet, airborne), and the significance of infection control in healthcare settings., Principles of standard precautions, handwashing techniques, hand sanitizers, respiratory hygiene, and cough etiquette.	90 Hours	CO1







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2	Sterilization and Disinfection: Methods of sterilization (autoclaving, dry heat, chemical sterilants), disinfection techniques, and selection of appropriate disinfectants.	90 Hours	CO2
3	Use of Personal Protective Equipment (PPE): Types of PPE (gloves, gowns, masks, eye protection), proper donning and doffing procedures, and disposal protocols.	90 Hours	CO3
4	Hospital-Acquired Infections and Waste Management: Common HAIs, prevention strategies, biomedical waste segregation, handling, and disposal in compliance with regulatory guidelines.	90 Hours	CO4

Suggested Readings

1. Kamaluddin A. et al., Infection Control in Healthcare Settings, 3rd Edition, Jaypee Publications
2. Shrivastava P.S., Textbook of Infection Control and Hospital Hygiene, 2nd Edition, Elsevier India
3. Parikh C.R., Infection Control in Clinical Laboratories, 1st Edition, CBS Publishers
4. WHO Guidelines on Hand Hygiene in Healthcare, 2009

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2	3	—	—	1	1	2	2	—	2	2	2	3	2
CO2	1	3	—	3	—	—	1	1	—	1	2	1	3	1
CO3	1	3	—	2	1	1	2	2	—	—	2	1	3	2
CO4	2	3	—	—	—	—	2	1	—	2	2	1	3	1

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Program	BAOTT				
Year	III	Semester		VI	
Course Name	Preoperative Patient Preparation				
Code	BOT 602P				
Course Type	DSC	L	T	P	Credit
Pre-Requisite		0	0	12	06
Course Objectives	To understand the steps and significance of preparing a patient for surgery. To familiarize students with preoperative checklists, consent, and documentation. To train students in assessing and recording vital signs and patient history. To enable students to perform basic nursing and technical tasks as part of preoperative care.				
Course Outcomes					
CO1	Conduct comprehensive preoperative assessments including vital signs.				
CO2	Document relevant patient history and obtain informed consent appropriately.				
CO3	Follow correct physical preparation protocols for surgery.				
CO4	Assist in safely transferring patients to OT and verifying surgical checklists.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	Preoperative Assessment: Medical history and physical examination, Pre-anesthesia evaluation, Assessment of vital signs (BP, HR, Temp, RR, SpO ₂)	45 Hours	CO1
2	Investigations and Documentation: Preoperative investigations (CBC, LFT, RFT, ECG, X-ray), Consent forms and legal documentation, Checklist before shifting to OT	45 Hours	CO2
3	Physical Preparation: Fasting and preoperative medications, Hair removal techniques and hygiene protocols, Skin marking and positioning basics	45 Hours	CO3

4	Final Preparatory Steps and Transfer: Final identity and site confirmation (time-out), Shifting and handover process to OT staff	45 Hours	CO4
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Suggested Readings

1. Suresh Sharma, Fundamentals of Nursing, Jaypee Brothers
2. S. T. Hess, Handbook of Perioperative Care, Elsevier
3. Ajay Yadav, Basics of Operation Theatre Services, Jaypee Brothers
4. WHO, Safe Surgery Saves Lives Guidelines
5. Smeltzer & Bare, Brunner & Suddarth's Textbook of Medical-Surgical Nursing, Lippincott

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	2	2	—	3	2	2	2	—	3	3	2	3	2
CO2	2	1	—	—	2	—	3	2	2	1	2	2	2	2
CO3	2	3	1	2	3	1	1	1	—	2	2	1	3	1
CO4	2	2	—	2	3	1	2	2	—	2	3	1	3	2

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Program	BAOTT				
Year	III	Semester		VI	
Course Name	Internship				
Code	BOT 603P				
Course Type	DSC	L	T	P	Credit
Pre-Requisite		0	0	4	2
Course Objectives	Apply theoretical knowledge in a real-world work environment to develop practical skills and professional competence. Enhance communication, teamwork, and problem-solving abilities through active participation in organizational tasks and projects. Understand workplace culture, ethics, and professional responsibilities to prepare for future career opportunities.				
Course Outcomes					
CO1	Demonstrate the ability to perform job-related tasks effectively by applying academic concepts to practical scenarios.				
CO2	Exhibit improved interpersonal and professional skills, including communication, collaboration, and adaptability in a work setting.				
CO3	Reflect on the internship experience to identify personal strengths, areas for improvement, and career goals.				

Program	BAOTT				
Year	IV	Semester		VII	
Course Name	Anesthesia Equipment				
Code	BOT 701P				
Course Type	DSC	L	T	P	Credit
Pre-Requisite		0	0	24	12
Course Objectives	To introduce students to the basic and advanced equipment used in anesthesia and understand the structure, function, and working mechanisms of anesthesia machines. To ensure knowledge of gas delivery systems, vaporizers, and breathing circuits. To train students in routine checking, maintenance, and troubleshooting of anesthesia equipment. To promote safe and effective use of monitoring equipment during anesthesia.				
Course Outcomes					
CO1	Identify and explain the function and working principles of major anesthesia equipment, including the anesthesia machine and its gas delivery system.				
CO2	Operate and manage vaporizers and breathing circuits safely.				
CO3	Assist in airway management using appropriate tools during surgery.				
CO4	Perform routine checks and identify faults in anesthesia equipment.				

Module	Course Contents	Contact Hrs.	Mapped CO
I	Introduction to Anesthesia Equipment, Anesthesia Machine and Gas Supply System: Overview of anesthesia workstation, General safety features and design, Components of anesthesia machine, Compressed gas cylinders and color coding, Pressure regulators, flowmeters, and oxygen flush valve	90 Hours	CO1









2	Vaporizers and Breathing Circuits: Types of vaporizers and their function, Circle breathing system and Mapleson circuits, CO ₂ absorber and scavenging system	90 Hours	CO2
3	Airway Management Tools: Face masks, laryngoscopes, oropharyngeal and nasopharyngeal airways, Endotracheal tubes and intubation equipment, Supraglottic devices (LMA, I-gel)	90 Hours	CO3
4	Monitoring and Maintenance: Monitors: ECG, pulse oximeter, capnography, Daily machine checklist and maintenance log, Basic troubleshooting techniques and sterilization protocols	90 Hours	CO4

Suggested Readings

1. Ajay Yadav, Short Textbook of Anesthesia, Jaypee Brothers
2. R. D. Miller, Miller's Anesthesia, Elsevier
3. Paul G. Barash, Clinical Anesthesia, Lippincott Williams & Wilkins
4. A. I. Bhattacharya, Equipment in Anaesthesia and Critical Care, Oxford University Press
5. WHO, Guidelines for Safe Surgery and Anesthesia Equipment Safety

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	2	3	3	—	1	1	2	—	2	2	2	3	1
CO2	2	2	3	3	1	2	—	2	—	2	3	1	3	1
CO3	2	1	3	2	2	3	1	2	—	1	3	2	3	2
CO4	3	2	2	3	—	—	1	1	1	2	3	2	3	1

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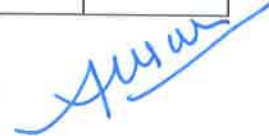
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Program	BAOTT				
Year	IV	Semester		VII	
Course Name	Central Sterile Supply Department				
Code	BCT 702P				
Course Type	DSC	L	T	P	Credit
Pre-Requisite		0	0	16	08
Course Objectives	To understand the structure and importance of the CSSD in surgical safety. To familiarize students with the classification, cleaning, and disinfection of instruments. To train students in various sterilization techniques and their validation. To promote best practices in handling sterile supplies.				
Course Outcomes					
CO1	Explain the role and workflow of the Central Sterile Supply Department.				
CO2	Demonstrate effective cleaning and disinfection of surgical instruments				
CO3	Apply correct sterilization methods and monitor their efficacy.				
CO4	Package, label, and store sterile instruments correctly.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	Introduction to CSSD Role of CSSD in hospital settings, Layout and workflow (dirty, clean, sterile zones)	60 Hours	CO1
2	Cleaning and Disinfection: Manual and mechanical cleaning methods, Use of enzymatic detergents and ultrasonic cleaners, Types of disinfectants and their uses	60 Hours	CO2
3	Sterilization Techniques: Principles of sterilization, Methods: Autoclaving, ETO, Plasma, Dry Heat, Chemical, Sterilization indicators (chemical & biological)	60 Hours	CO3









4	Packaging and Storage: Wrapping materials and sealing techniques, Labelling and tracking systems	60 Hours	CO4
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Suggested Readings

1. Seema Suman, Central Sterile Services Department Manual, Jaypee Brothers
2. Judith Tanner, Principles and Practice of Sterilization, Elsevier
3. CDC Guidelines on Disinfection and Sterilization in Healthcare Facilities
4. WHO, Decontamination and Reprocessing of Medical Devices for Health-care Facilities
5. Ajay Yadav, Basics of Operation Theatre Services, Jaypee Brothers

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2	3	—	2	—	—	1	2	1	2	2	1	3	2
CO2	2	3	—	2	—	—	1	1	—	1	2	1	3	1
CO3	2	3	—	2	—	—	1	1	1	2	2	1	3	1
CO4	1	3	—	2	—	—	—	1	—	1	2	1	3	1

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Program	BAOTT				
Year	IV	Semester		VIII	
Course Name	Assisting in Various Types of Anesthesia				
Code	BOT 801P				
Course Type	DSC	L	T	P	Credit
Pre-Requisite		0	0	16	08
Course Objectives	To introduce different types of anesthesia used in clinical practice. To familiarize students with the preparation and monitoring required for each anesthesia type. To train students in assisting anesthesiologists during induction, maintenance, and emergence phases. To understand the safety protocols and emergency management related to anesthesia.				
Course Outcomes					
CO1	Differentiate various types of anesthesia and their indications.				
CO2	Prepare anesthesia equipment and medications for different anesthesia types.				
CO3	Assist effectively during induction, maintenance, and emergence phases of general anesthesia.				
CO4	Support regional and local anesthesia procedures with appropriate techniques.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	Introduction to Types of Anaesthesia: General anesthesia: overview and phases, Regional anesthesia: spinal, epidural, peripheral nerve blocks, Local anesthesia	60 Hours	CO1
2	Preparation for Anaesthesia: Pre-anesthetic check and equipment preparation, Medication preparation and dosage calculation, Patient positioning and aseptic techniques	60 Hours	CO2








3	Assisting During General Anaesthesia: Induction and airway management assistance, Monitoring anesthesia depth and vital signs, Assisting with intubation and extubation procedures	60 Hours	CO3
4	Assisting During Regional and Local Anaesthesia: Assisting in spinal and epidural blocks, Handling nerve block setups and drug administration, Patient monitoring and sedation assistance	60 Hours	CO4

Suggested Readings

1. Miller RD, Miller's Anesthesia, Elsevier
2. Paul G. Barash, Clinical Anesthesia, Lippincott Williams & Wilkins
3. A.I. Bhattacharya, Equipment in Anaesthesia and Critical Care, Oxford University Press
4. WHO, Safe Surgery Saves Lives
5. Ajay Yadav, Short Textbook of Anesthesia, Jaypee Brothers

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	1	3	—	—	—	1	2	—	2	2	2	2	1
CO2	2	2	3	3	1	1	—	1	—	1	2	1	3	1
CO3	2	2	3	2	3	3	1	2	—	2	3	2	3	2
CO4	2	2	3	2	2	2	1	2	—	2	2	2	3	2

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Program	BAOTT				
Year	IV	Semester		VIII	
Course Name	Airway Management and Intubation Techniques				
Code	BOT 802P				
Course Type	DSC/RP	L	T	P	Credit
Pre-Requisite		0	0	8	4
Course Objectives	To develop knowledge and skills for effective airway assessment and management. To train students in the use of various airway devices and intubation techniques. To recognize and manage difficult airway situations. To promote safe and aseptic techniques during airway management procedures.				
Course Outcomes					
CO1	Perform airway assessment and prepare patients for airway management.				
CO2	Assist in using basic and advanced airway devices effectively.				
CO3	Demonstrate skills in various intubation techniques under supervision.				
CO4	Understand difficult airway scenarios and apply appropriate management strategies.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	Airway Assessment and Preparation: Clinical evaluation of the airway, Preparation for airway management, Patient positioning and pre-oxygenation techniques	30 Hours	CO1
2	Airway Device: Basic airway adjuncts: oropharyngeal and nasopharyngeal airways, Supraglottic airway devices (Laryngeal Mask Airway, I-Gel), Endotracheal tubes and types	30 Hours	CO2

3	Intubation Techniques: Direct laryngoscopy and endotracheal intubation, Video laryngoscopy and fiberoptic intubation, Nasotracheal intubation and awake intubation techniques	30 Hours	CO3
4	Difficult Airway Management and Complications Identification and preparation for difficult airway, Emergency airway access: cricothyrotomy, tracheostomy, Complications of airway management and their prevention	30 Hours	CO4

Suggested Readings

1. Miller RD, Miller's Anesthesia, Elsevier
2. Paul G. Barash, Clinical Anesthesia, Lippincott Williams & Wilkins
3. J. G. Hardman, Airway Management, Cambridge University Press
4. American Society of Anesthesiologists Practice Guidelines, Management of the Difficult Airway
5. Ajay Yadav, Short Textbook of Anesthesia, Jaypee Brothers

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	2	3	—	2	3	1	2	—	2	3	2	3	2
CO2	2	2	3	2	2	3	—	2	—	2	3	2	3	2
CO3	2	2	3	2	2	3	—	1	—	2	3	2	3	2
CO4	2	2	3	—	1	3	1	2	—	2	3	2	3	2

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Program	BAOTT				
Year	IV	Semester		VIII	
Course Name	Surgical Instrumentation and Tray Setup				
Code	BOT 803P				
Course Type	DSC/RP	L	T	P	Credit
Pre-Requisite		0	0	8	04
Course Objectives	To introduce common surgical instruments used in various types of surgeries. To familiarize students with the identification, handling, and care of surgical instruments. To train students in the proper setup of surgical trays according to procedure type. To emphasize sterile techniques during instrumentation and tray preparation.				
Course Outcomes					
CO1	Identify and classify common surgical instruments accurately.				
CO2	Demonstrate proper handling and care techniques for surgical instruments.				
CO3	Set up surgical trays according to specific surgical procedures maintaining sterility.				
CO4	Apply aseptic principles effectively during instrumentation and tray preparation.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	Introduction to Surgical Instruments: Classification of surgical instruments (cutting, grasping, retracting, clamping, etc.), Materials and design of instruments, Basic care and maintenance of instruments	30 Hours	CO1
2	Identification and Handling: Identification of instruments for general, orthopedic, and specialty surgeries, Proper handling techniques to maintain sterility, Instrument counting and safety protocols	30 Hours	CO2

3	Surgical Tray Setup: Types of surgical trays and their component, Setup procedures for common surgeries (general, orthopedic, ENT, etc.), Checklist and verification of instruments before surgery	30 Hours	CO3
4	Sterile Techniques and Infection Control: Principles of asepsis during tray setup, Role of scrub nurse and assistant in maintaining sterility, Dealing with contamination and emergency protocols	30 Hours	CO4

Suggested Readings

1. Surgical Instruments: A Pocket Guide, Maryann P. Hogan, F.A. Davis Company
2. Alexander's Care of the Patient in Surgery, Jane C. Rothrock, Elsevier
3. Textbook of Operating Room Techniques, T. Jayalakshmi, Paras Medical Publishers
4. Operating Room Techniques, Elizabeth G. Hill, Jaypee Brothers
5. Ajay Yadav, Basics of Operation Theatre Services, Jaypee Brothers

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	2	2	2	—	—	1	1	—	1	2	1	3	1
CO2	2	3	—	2	—	—	1	1	—	1	2	1	3	1
CO3	2	3	—	3	2	—	—	1	—	2	2	1	3	2
CO4	2	3	—	2	1	—	2	2	—	1	2	1	3	2

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Program	BAOTT				
Year	IV	Semester		VIII	
Course Name	Surgical Positioning and Draping Techniques				
Code	BOT 804P				
Course Type	DSC/RP	L	T	P	Credit
Pre-Requisite		0	0	8	04
Course Objectives	To understand the rationale behind different surgical positions and their clinical relevance. To train students in safe patient positioning techniques before surgery. To ensure awareness of pressure point protection and injury prevention during surgery. To develop skills in sterile draping methods and maintenance of asepsis.				
Course Outcomes					
CO1	Describe various surgical positions and their clinical indications.				
CO2	Demonstrate safe positioning techniques including pressure point protection.				
CO3	Identify risks and complications associated with surgical positioning.				
CO4	Perform surgical draping while maintaining aseptic conditions.				

Module	Course Contents	Contact Hrs.	Mapped CO
1	Introduction to Surgical Positioning: Principles of patient positioning, Objectives and general precautions, Patient safety and body alignment	30 Hours	CO1
2	Common Surgical Positions: Supine, prone, lateral, lithotomy, Trendelenburg, reverse Trendelenburg, Fowler's, Indications and procedures for each position, Positioning devices and aids	30 Hours	CO2

3	Risks and Complications: Nerve injuries, pressure sores, respiratory or circulatory compromise, Identification and prevention strategies, Documentation and communication of positioning	30 Hours	CO3
4	Draping Techniques: Types of surgical drapes, Draping procedures for different surgeries, Maintaining sterility during draping	30 Hours	CO4

Suggested Readings

1. Alexander's Care of the Patient in Surgery – Jane C. Rothrock
2. Textbook of Perioperative Care – Lois Hamlin
3. Basics of Operation Theatre Services – Ajay Yadav
4. Berry & Kohn's Operating Room Technique – Nancy Marie Phillips
5. Surgical Technology for the Surgical Technologist – AST

Course Articulation Matrix														
PO-PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	2	1	—	3	—	1	2	—	2	2	1	3	1
CO2	2	3	—	—	3	1	1	1	—	2	2	1	3	2
CO3	2	3	2	—	2	2	2	1	—	2	3	1	3	1
CO4	2	3	—	2	2	—	2	1	—	2	2	1	3	2

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