



جامعة المعرفة
ALMAAREFA UNIVERSITY



College of Applied Sciences
Anaesthesia Technology Department
Respiratory Care Department
Student Handbook

TABLE OF CONTENT

Welcome Message	2
Department Mission, Vision and Goals	3
Program learning Outcomes	4
Organizational Chart of the Department	5
Role of Anaesthesia technology	6
Professional Jobs of Anaesthesia technology	7
Students Rights and Responsibilities	8
Students Rights	8
Students Responsibilities	12
Study and Exams Regulations	15
Academic Calendar	15
Orientation Meeting for fresh students	15
Attendance Regulations	15
Suspension of study	15
Re- Enrolment	15
Academic Transcript	16
Academic Load per semester	16
Grade Codes	16
Degree Award	16
Exam Regulations	17
Student Services	18
Scholarships	18
Learning Management System (LMS)	18
Academic Portal	18
Library	18
Guidance and Counselling Services	19
Student Code of Ethics and Charter	20
Complaints and Grievances	21
Anaesthesia technology Program Study Plan	22
First Year: Semester 1	23
First Year: Semester 2	24
Second Year: Semester 3	25
Second Year Semester 4.....	26
Third Year Semester 5	27
Third Year Semester 6	28
Fourth Year Semester 7	29
Fourth Year Semester 8	30
Rules and Regulations of Clinical Training	31
Clinical Attendance	32
Internship Learning Outcomes	33
Anaesthesia technology Program Student Acknowledgement for	34

❖ Welcome Message

On behalf of myself and my colleagues, I would like to congratulate you on your admission to the Anaesthesia technology Department at college of applied medical sciences, I wish you an academic life full of pleasure and success. Al Maarefa University is one of the leading universities in the establishment of the department of anaesthesia technology, which has an important role in the preparation and graduation of anaesthesia needed by our dear country. Within the framework of the university's vision and mission, the department offers a comprehensive and high-level academic role in which theoretical studies are integrated with practical applications to prepare a distinguished graduate who can compete for jobs nationally, regionally and internationally. Our academic staff consists of a distinguished group of faculty members who work hard to serve our students in all aspects of scientific, practical and social life. This handbook is prepared to provide you with all the necessary information about the program, including study plan, and other several important details. This will serve as a reference guide as you proceed through your college life as an anaesthesia technology student. I wish you a fruitful academic performance that will be successful.

Best Regards

Head of Anaesthesia Technology Department

❖ Department Mission, Vision and Goals

✓ Program Mission

"To prepare high caliber participants in knowledge-based society; and to motivate creativity, excellence in research, education, and community service in Applied Science".

✓ Program Vision:

Excellence in education for the development of the field of anesthesia.

✓ Program Goals

1. Prepare the graduate to become qualified anesthesia technologist ready to work in anesthesia medical care under the direct supervision of anesthetist / anesthesiologists physician doctor or specialist in a general hospital setting, anesthesiology departments, intensive care units, interventional and diagnostic radiology, labor and delivery units, outpatient procedure suites, ambulatory surgery centers, and emergency rooms.
2. Provide the graduate with the needed skills and knowledge to be able to assist anesthesiologists in operating rooms
3. Provides graduates with the knowledge and skills that are needed to prepare them as skilled anesthesia technologist practitioners.
4. Provides an educational experience that develops the graduate's intellectual ability in order to facilitate the development of independent judgment and problem-solving skills.

5. Provides graduates to demonstrate various cognitive and communication skills that promote them to succeed in their professional careers through multi-disciplinary team, proactive involvement, critical thinking, ethical behavior and responsibility, and influential roles in their organizations and communities.
6. Identifies opportunities for anesthesia technology research and utilizes its results and findings in evidence-based anesthesia practice.
7. Provides graduates that demonstrate self-professional development and life-long learning.
8. Provides graduates with the ability to pursue their postgraduate studies and succeed in academic and research careers.

❖ **Program learning Outcomes**

✓ **Knowledge and understanding**

- K1 Describe knowledge, principles, concepts and underlying theories related to the field of anesthesia technology.
- K2 Outline the knowledge and roles of perioperative anesthesia technology practice.
- K3 Identify the available research and evidence-based knowledge and their impact on anesthesia technology practice.

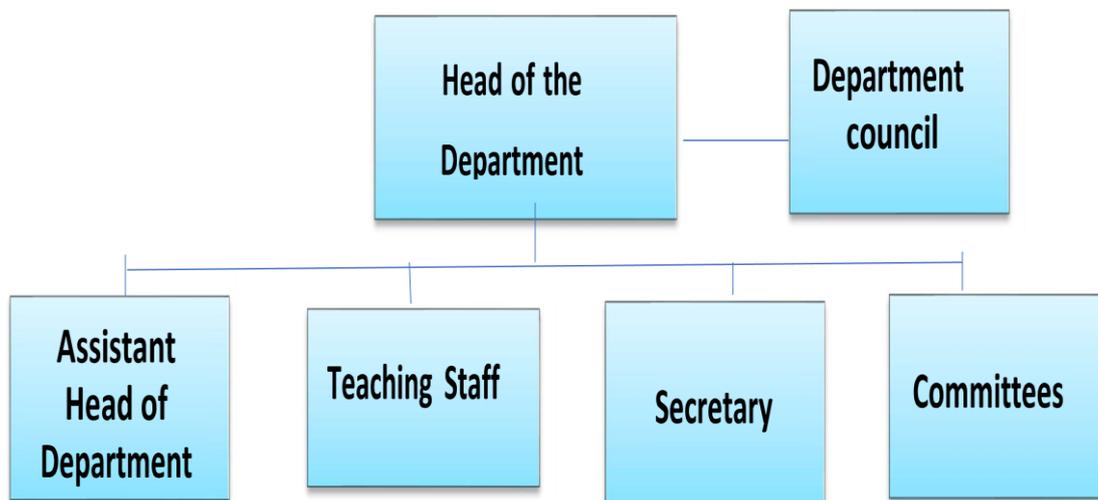
✓ **Skills**

- S1 Integrate the principles, and concepts from related disciplines based on the nature and extent of the patient's need for anesthesia technology interventions.
- S2 Develop creative solutions to manage emergent emergency situations within the scope of practice.
- S3 Apply critical thinking, problem solving and scientific research skills within the anesthesia technology practice.
- S4 Demonstrate the perioperative skills including patient assessment, investigation results analysis, patient monitoring and data documentations within anesthesia technology practice.
- S5 Utilize all necessary equipment and medications for anesthetic procedures, safely and efficiently within the scope of practice.
- S6 Communicate effectively with patients, families, and intra-professional team members using different modalities, evolving technologies and information systems.

✓ **Values**

- V1 Adhere to the professional code of conduct and ethical principal integral to anesthesia technology practice.
- V2 Demonstrate leadership, autonomy, accountability, commitment, collaboration, and professional development to enhance anesthesia technology practice.

Organizational Chart of the Department



Role of anesthesia technology practitioner

Anesthesia Technology Practitioners (ATPs) play a crucial role in the perioperative care team, assisting anesthesiologists and other healthcare professionals in providing safe and effective anesthesia to patients undergoing surgical or medical procedures. Their responsibilities encompass various tasks before, during, and after anesthesia administration. Here's an overview of their role:

Preoperative Preparation: ATPs assist in preparing the anesthesia equipment and ensuring its proper functioning. They check anesthesia machines, monitors, ventilators, and other essential equipment to ensure they are in optimal condition. They also set up intravenous lines and other equipment needed for anesthesia administration.

Patient Monitoring: During anesthesia administration, ATPs monitor patients' vital signs, including heart rate, blood pressure, oxygen saturation, and respiratory rate. They also observe patients for any signs of adverse reactions or complications during anesthesia induction, maintenance, and emergence.

Anesthesia Administration Assistance: ATPs assist anesthesiologists in administering anesthesia medications and other agents. They may help with tasks such as preparing medication doses, maintaining intravenous lines, and monitoring drug infusion rates.

Airway Management: ATPs assist with airway management techniques, such as intubation and extubation, under the direction of anesthesiologists. They may also provide support during difficult airway situations.

Intraoperative Support: Throughout surgical procedures, ATPs provide ongoing support to the anesthesia care team. This may include adjusting anesthesia equipment settings, responding to changes in patient status, and communicating relevant information to the anesthesiologist and surgical team.

Postoperative Care: After surgery, ATPs continue to monitor patients during the emergence from anesthesia and in the post-anesthesia care unit (PACU). They assess patients' recovery status, manage pain and nausea, and ensure patients are stable before transferring them to the appropriate care area.

Equipment Maintenance and Troubleshooting: ATPs are responsible for the maintenance, cleaning, and sterilization of anesthesia equipment to ensure compliance with safety and infection control standards. They also troubleshoot equipment malfunctions and perform routine checks to ensure proper functioning.

Documentation and Record-Keeping: ATPs maintain accurate records of anesthesia procedures, medications administered, patient responses, and any adverse events or complications. Thorough documentation is essential for continuity of care and quality improvement efforts.

Overall, anesthesia technology practitioners play a vital role in supporting anesthesia care delivery, promoting patient safety, and optimizing surgical outcomes. Their specialized training and expertise contribute to the efficient and effective functioning of the perioperative team.

Professions for which students are prepared:

- General and Regional Anesthesia (basic grade)
- Clinical instructor (education)
- CPR coordinator
- Member of rapid response team
- Pain management instructor
- Post anesthesia care unit (PACO)
- Anesthesia clinical instructor (Quality, Infection control, Lifesaving skills, codes Education (Technical skills – non-technical skills), clinical intravenous (IV) therapy team and Clinical researcher, supply and resources management.
- Supply chain coordinator
- Pre-operative anesthesia clinic
- Supervisor of shifts
- Head of anesthesia technologist department

Students Rights and Responsibilities

Anaesthesia Technology Department is a community of scholars in which the ideals of freedom of inquiry, thought, expression, as well as freedom of the individual are sustained. It is committed to preserving the exercise of any right guaranteed to individuals by the laws of the Kingdom of Saudi Arabia. However, the exercise and

preservation of these freedoms and rights require a respect for the rights of all in the community to enjoy them to the same extent.

Students Rights

The following are University student rights:

- 1- The student's right to good treatment, and full equality with other students in rights and duties. The student has the right to claim his/her rights on the university campus documenting the texts of the regulations in force at the university.
- 2- The student's right to be provided with the appropriate academic environment to achieve assimilation and study easily by providing all educational capabilities available to serve this goal.
- 3- The student's right to obtain the largest amount of material, and the knowledge associated with the subjects the student studies, whether through systematic lessons, extracurricular activities, or while the student is in college, in accordance with the provisions and regulations governing the academic work in the college.
- 4- The student's right to obtain study plans in the college or department and the specializations available to him/her, as well as reviewing the schedules before starting the semester, and conducting his/her registration in the courses

provided by the system, and the registration rules taking into account the order of priorities in the registration according to fair controls when it is not possible to achieve the wishes of all students in registering a course/subject.

- 5- The student's right to delete a course or add another one, or to not continue or postpone the entire semester, according to the rules of registration in colleges, according to the regulations organizing this.
- 6- The student's right to adhere to the university's faculty members with the dates and times of lectures approved in the academic schedule, and to fulfil scientific and laboratory hours for them.
- 7- The student's right to inquire of his instructor on the university campus, whether during lectures or during the office hours announced to meet the students or through the official e-mail of the university, and discuss the appropriate scientific discussion, and request more clarification and of what the student did not know of science and knowledge, without supervision or punishment if the student did not violate the approved regulations and general morals.
- 8- The student has all the rights stipulated in the list of studies and tests for the undergraduate stage, and the student disciplinary list, including

grievance against disciplinary decisions, re-correction, grievance against a course assessment and other rights.

- 9- The student's right to know the dates of the tests at least one week before they are held (with the exception of pop-quizzes and worksheets)
- 10- The student's right to have exam questions in the course and its content, and issues raised or referred to during the lectures, and to take into account the balanced and logical distribution of grades in order to achieve a fair assessment of the student's capabilities.
- 11- The student's right to perform all the tests that are held for the course unless there is a systematic barrier preventing the student from taking them according to the instructions and regulations for that, providing that the student is informed of his/her deprivation through the official channels of the university (the student's account on the academic portal) with sufficient time.
- 12- The student's right to obtain feedback on his/her performance in the quarterly tests.
- 13- The student's right to know the results obtained in the monthly, quarterly and final exams that were performed after completing their correction and approval.

- 14- The student has the right to review the correction of his/her answer sheet in the final exam as determined by the regulations, decisions and controls issued by the college in organizing that.
- 15- The student has the right to his file contents inside the college campus orderly in a safe place, and not to hand over any of the contents of the file except to the student himself or to entrust him officially, or who authorizes him to do so by the investigating authorities or the judiciary, or another government agency, as well as not to publish any of these contents unless this publication is the result of the decision of a disciplinary punishment against the student.
- 16- The student has the right to participate in scientific organizations, contribute to its formation and work within its activities in accordance with the regulations organizing this.
- 17- The student's right to benefit from the educational services, facilities and means available at the university like laboratories, the library, as well as various educational activities and programs. The student may participate in extracurricular activities carried out at the university that aims to increase the student's experience and develop his/her creativity and expand the scientific and

professional awareness, in accordance with the university's applicable laws and regulations.

- 18- The student has the right to participate in sports, cultural or social activities that the university establishes or participates in.
- 19- The student's right to benefit from the psychological and social assistance and care provided by the university to help the student solve his/her problems that hinder him/her from educational achievement through student, academic and social counseling, and to participate in the activities established there according to the university's regulations and instructions.
- 20- The student has the right to participate in programs, internal and external trips, cultural activities, as well as participate in community service activities and volunteer work that the university establishes or participates in.
- 21- The right of a student with special needs to obtain a service appropriate to his/her needs in accordance with the applicable regulations and rules.
- 22- The student has the right to demand good treatment, be given the opportunity to express him/her opinion, present any project or issue for

- discussion, and respond to his/her inquiries at an appropriate time for that.
- 23- The student's right to provide the necessary conditions –within the capabilities of the university- to highlight the talents of the students in all scientific, cultural and technical fields.
 - 24- The student's right to freedom of expression and discussion of scientific and educational issues within the framework of the university's regulations, rules and established norms in society.
 - 25- The student's right to be able to defend him/herself in front of the investigation authority – at the university – in any disciplinary case brought against the student, and not to issue a sentence against the student only after hearing his/her statement, unless his/her presence was not proven after he/she was summoned for the second time according to what is stipulated in the student disciplinary regulations.
 - 26- The student's right to complain about any matter that harms him/her in his/her relationship with the members of the teaching staff, or department or any of the university units, and to submit the complaint or grievance in accordance with the rules and instructions regulating this matter, and

- to enable the student to know the outcome of the complaint by the authority responsible for it.
- 27- The student has the right to file a grievance against the disciplinary decision issued against him/her in accordance with the regulations governing this matter.
 - 28- The student's right to obtain the documents granted by the university, including granting him/her a degree when deserved and after completing the requirements for graduation from the university, in accordance with the regulations governing that situation.
 - 29- The student's right to obtain an official receipt voucher for all that he/she pays for the university treasury, and the student has the right to recover what he/she pays as a refundable insurance, in accordance with the regulations and rules.

Student Responsibilities:

- 1- Student's adherence to the rules and ethics of Islam, adherence to general rules and morals, customs, traditions and values of society that are observed and derived from the Islamic religion.

- 2- The student's commitment not to say or do anything that contradicts the Islamic religion, honor, dignity or medical biography and good behavior, or violates the reputation of the university whether inside or outside it. Respect for all university employees, including faculty members, students, employees, workers, and other employees of companies contracting with the university, as well as visiting guests, and not to offend them with words, actions, or any other form.
- 3- The student's commitment to the university's systems, regulations and controls. Also, commitment to all the rules, guidelines, advertisements, and academic and scientific norms, and not to circumvent or violate them, or to provide any false documents to obtain any right or advantage contrary to the provisions of the relevant regulations.
- 4- The student's commitment to pursue and work according to what is stated in the university's regulations such as the list of studies and tests for the university stage, the disciplinary regulations for students, and the document on the rights and obligations of the university student.

- 5- The commitment of the student to attend to study, work hard, attend all theoretical, practical lectures. The student must not be absent except with an acceptable excuse in accordance with the regulations, and to carry out all academic requirements in light of the rules and dates approved in the academic calendar of the university.
- 6- The commitment of the student to pay the financial sums due to him/her, whether they are tuition fees, student services, fines, etc.

This is before the start of the semester, so that it does not prevent the student from enrolling and starting studying from the beginning of the semester.

- 7- The commitment of the student to review the academic schedule for each semester through the academic portal, and to ensure that there are no mistakes in registering for the academic courses, and in the event of errors in the schedule, the student should quickly contact the registration coordinator in the department.
- 8- The commitment of the student not to cheat or participate in it when preparing and presenting home-works, researches and academic requirements of the subjects. The student also must

not attribute any other's work to him/herself, or resort to any unlawful means in preparing such researches, home-works and other curricular requirements.

- 9- The commitment of the student not to cheat, initiate or participate in it, or help in committing cheating in any way during or outside the performance of the test.
- 10- The commitment of the student not to impersonate any person, or to bring any study materials or devices that are prohibited to the test room or the laboratory, in accordance with the university's regulations and instructions.
- 11- Be calm and abide by the instructions given by the responsible person inside the test room, and not to violate that.
- 12- The student's commitment not to provide any forged documents and knowing that this will expose him/her to punishment according to the grievance and disciplinary regulations.
- 13- The student's commitment to preserve college's facilities and properties, university equipment, materials, and books. Also, to ensure their proper use and return what was borrowed at the specified time without any damage.

- 14- The student's commitment to carry the university card throughout his/her presence at the university, and to present it to the teaching staff or employees when requested by them. Also, upon completion of any transaction for the student inside the university, and the student is prevented from taking the test if he/she does not submit the card to the person in charge inside the test room.
- 15- The student's commitment not to disrupt or incite the study during lectures, or not to attend these lectures or activities that regulations require the students to attend.
- 16- The commitment of the student to the official/formal uniform to ensure proper respect throughout his/her stay at the university.
- 17- The commitment of the student not to organize any societies or groups within the university, or to participate in them without prior formal permission from the competent authorities of the university.
- 18- The student's commitment not to distribute flyers, to issue wall papers, or to publish and announce any of them on the university's campus. Also, the student must not collect money or signatures without prior official permission from the university's competent authorities.

- 19- The student's commitment not to try to incite, or to participate in demonstrations that violate the general system in the country. 20-The student's commitment to represent the university in the assignments assigned to him/her with a good representation that is appropriate for the university's academic standing.
- 21- The commitment of the student to view and read the announcements posted on the notice board inside the university building, or on the official university website, or through the official email for the student, and it needs to be followed/checked on a daily basis. The student is committed not to invoke his/her ignorance of what is published through it.
- 22- The student's commitment during the field training to follow the regulations of the headquarters in which he/she trains in. Also, the student's commitment to the university's systems and to be the best representative of it.

Study and Exams Regulations

Academic Calendar

The Registrar publishes and distributes the annual academic calendar which includes dates for

registrations, adding and dropping courses, payment of fees, holidays, final exams, commencement and other important dates. The calendar consists of two 15week semesters. It is the responsibility of each student to consult this calendar and follow all deadlines. For more information, go to [https://www.um.edu.sa/ar/academic- calendar](https://www.um.edu.sa/ar/academic-calendar).

Orientation Meeting for fresh students:

This meeting is aimed to introduce new students to university, program regulations and facilities as well as provide them with essential guidelines to help them succeed in their studying.

Attendance Regulations

Students are required to attend lectures, laboratory sessions and other teaching activities.

They should have at least 75% attendance per semester.

If student attendance is less than 75 %, he/she will be denied entrance to the respective final examination. A student who is denied entrance to the examination due to absences is considered to have failed that course and is given the grade DN in the course.

In case of students Absent due to any cause he/she should submit an Excuse Form, attached with the

documents that support his/her absence, through Students Affairs Department.

Suspension of study

The student will be allowed to apply for suspending the study prior the end of the first week of the semester due an acceptable reason to the head of the department as the postponement period should not exceed two consecutive semesters or three non-consecutive semesters throughout study period at the program, unless student's registration will be closed after that.

Re- Enrolment

The student whose record has been closed may apply for the restoration of his record under the same number before the suspension.

Academic Transcript

The academic transcript is a statement that explains the student's academic progress. It includes the courses studied in each semester or year, course numbers and codes, number of credit hours, the grades earned, and the codes and points assigned to these grades. The record also shows the semester and cumulative GPAs and the student's general academic status, in addition to the courses from which a transferred student is exempt.

Academic Load per semester

Total number of credit hours that you can study per semester is depend on student's grade point average (GPA).

Student's GPA	Maximum number of credit hours per semester
Less than 2 out of 4	12 hours
2 – less than 2.5	15 hours
2.5 – less than 4	19 hours
4	22 hours

Grade Codes:

Grade Code	Mark Range	Points	Grad
A+	95 - 100	4.00	Exceptional
A	90 - Less than 95	3.75	Excellent
B+	85 – Less than 90	3.50	Superior
B	80 – Less than 85	3.00	Very Good
C+	75 – Less than 80	2.50	Above Good
C	70 – Less than 75	2.00	Good
D+	65 – Less than 70	1.50	High Pass
D	60 – Less than 65	1.00	Pass
F	Less than 60	0	Fail
IP	-	-	In Progress
IC	-	-	In complete
DN	-	0	Denial
NP	60 or above	-	No Grade – Pass
NF	Less than 60	-	No Grade – Fail
W	-	-	Withdrawn

Degree Award

The first-class honors degree will be award to the student who scores GPA of 3.75 to 4.00 upon graduation. The second-class honors degree will be award to the student scoring GPA of 3.25 to less than 2.75 upon graduation.

Exams Regulations

- 1- Students should be at the exam room at least 15 min before the exam starts, and sign the exam's attendance sheet. The exam building will be closed after the exam starts.
- 2- Students are not allowed to enter the exam room without the college ID.
- 3- Students are not allowed to enter the exam room after half an hour of the exam or when any student left the exams room under any circumstances.
- 4- Students are not allowed to carry into the exam room any electronic devices such as mobile phones or smart watches or air pods. The college is not responsible in case of loss of such device.
- 5- Students are not allowed to carry into the exam room any papers, handouts, references, or any materials related to the course.

- 6- Students should focus on their exam, and should not talk to colleagues s, keep turning their faces, or perform any type of gestures during exam.

- 7- Students are not allowed to leave the exam room while they are conducting the exam under any circumstances
- 8- Students must maintain the college property, and should avoid any writing on the room boards, seats, or table. Also, should avoid any writing on hands. Such case is considered as type of cheating.
- 9- There should be complete silence during the exam to provide a proper examination environment by avoid chatting or using the mobile phones by the invigilators.
- 10- Students can submit their answer after half an hour of the start of exam.
- 11- The exam will be submitted automatically by Moodle at the end of exam time.
- 12- Students should use pen with blue or black color when writing on the answer sheets, pencils can be used at the Mathematics and Statistics course only to review the answer.
- 13- Calculators are not allowed during exam except for the courses that required such and determined by a decision by the department chair, and such device are not allowed to be passed between students.
- 14- Students must adhere to the college dress code all the time and during final exams.

Student Services

Scholarships

Some scholarships for college are merit-based. You earn them by meeting or exceeding certain standards set by the scholarship-giver. Merit scholarships might be awarded based on academic achievement or on a combination of academics and a special talent, trait, or interest.

Learning Management System (LMS)

The college decided to use Moodle as its learning management system, and since then students have accessed most of their class resources and activities using this platform. Faculty members were trained to design courses and upload material in Moodle with the support of the Moodle administrator.

Academic Portal

Student portals used to provide information about the study plan, special events, course details, grades and contact information.

Library

Library has an appropriate and various resources such as references, books, scientific journals, atlases, dictionaries and electronic services. It contains digital databases of global libraries and an electronic learning system.

As student you will provide with access to Saudi Digital Library which one of the largest sources of academic information.

Guidance and Counselling Services

Student orientation and guidance is an essential element of the educational process. Therefore, RCD will assign to each student an academic advisor who will act as a mentor, providing academic and career advice as well as general counselling.

Counselling Services

The College provides care, promotes each student's ability to seek appropriate mental care and treatment, respond to emergencies, and educates students toward balanced physical and mental health and wellness. These are Guidance areas:

1. Academic advising:

It is the main pillar of guidance, and it aims to provide the necessary support to the students during their studies so that they can complete the study plan within the time period in the easiest and most efficient way. Academic advisors will provide help in selecting students course of study and in planning their schedule. Advisors also approve students' schedules each semester. However, students are responsible for selecting their courses, meeting course prerequisites, and adhering to college policies and procedures.

The advisor's role is to assist the student in obtaining a well-balanced education and in interpreting college policies and procedures. Students may also consult faculty, department or program chairs, program coordinators, and dean.

2. Psychological Counselling:

It aims to guide the students' personality in a proper direction, change their view of themselves for the better, and realize the relationship between them and others and improving it and enhancing their academic level, and being able to solve their problems by themselves, make their decisions efficiently, and overcome the psychological impediments that may impose them between success and distinction.

3. Social Counselling:

It aims to prepare the students for positive interaction with their community, with its values, behaviors and diversity, and to adapt to that. Also, enhancing the students' role in contributing to community service, development, and interaction with them in a way that benefits themselves and their community.

4. Educational and Preventive Counselling:

Awareness and preventive counselling pursue a policy of “prevention is better than cure”, and in this way we prevent problems before they occur, by raising awareness of virtuous values and good principles, and strengthening them, and giving students a faithful dose in appropriate and modern methods, which helps them avoid problems they might go through at this age and current circumstances.

5. Career Advice:

Career counselling aims to prepare the students to enter the field of work and professional career competently by developing and refining their personal and behavioral characteristics, and training them on the necessary skills for success and excellence in their professional job. In addition to helping them in job search skills such as writing CV's, personal interviewing skills, respecting work, working in a team, teamwork ethics and the like.

Student Code of Ethics and Charter

Students must commit to University regulations regarding ethics and charter that include the following:

1. Show full respect towards their teachers.
2. Cooperate amongst themselves and duly appreciate and respect each other.
3. Maintain absolute quietness within and outside classrooms.
4. Safeguard departments and college's properties and not cause any damage to them.

5. Adhere to the academic and administrative rules and regulations of the college and university.

6. Abide by classes, laboratory, and practical schedules.

7. Be familiar with university's regulations and rules, in particular those related to their study plans.

8. Attend all classes and laboratory session unless excused as per university's rules and regulations.

9. Abide by university's rules and regulations related to exams and not cheat or attempt to do so when sitting for their exams.

10. Maintain professional and academic honesty and integrity whilst conducting research and other study duties.

11. Refrain from smoking at all university's premises.

12. Take active part in the college's scientific and social programs.

13. Maintain and safeguard reputation of their college and university being ambassadors of their academic institutions.

Anaesthesia technology program expects all students to maintain complete academic honesty and integrity in their academic experiences both in and out of the classroom. The College may initiate disciplinary proceedings against a student accused of any form of academic dishonesty, including but not limited to cheating on an examination or other academic work, plagiarism, collusion, and/or the abuse of resource materials.

Program Structure	Required/ Elective	No. of courses	Credit Hours	Percentage
Institution Requirements	Required	11		
	Elective	0		
College Requirements	Required	5		
	Elective	0		
Program Requirements	Required	31		
	Elective	0		
Capstone Course/Project				
Field Experience/ Internship		2	0	0%
Others				
Total		47	143	100%

Curriculum Structure

* Add a table for each track (if any)

2. Program Study Plan

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College or Department)
Level 1	BIOS 101	Biostatistics	Required		3	College
	COMP 100	Computer Essentials	Required		3	Institution
	ISLM 101	Islamic Culture	Required		2	Institution
	ARAB 101	Arabic Language I	Required		2	Institution
	PHYS 101	General Physics	Required		3	Institution
	ENGL 101	General English I	Required		5	Institution
Level 2	BIOL 101	General Biology	Required		4	College
	ARAB 103	Arabic Language II	Required		2	Institution
	CHEM 101	General Chemistry	Required		4	Institution
	ENGL 102	General English II	Required	ENGL 101	5	Institution
	ENGL 103	English for health Sciences	Required	ENGL 101	3	College
Level 3	ANAE 210	Introduction to Anesthesia	Required	BIOL 101 CHEM 101	4	Department
	ANAT 201	Anatomy	Required		3	College
	PHSL 201	Human Physiology	Required		3	College
	BIOC 200	Biochemistry	Required	CHEM 101	3	College
	MICR 201	Microbiology	Required	BIOL 101	3	College

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College or Department)
	PSYC 201	Introduction to Psychology	Required		3	Institution
Level 4	ANAE 220	Preoperative Assessment & basic Investigation	Required	ANAE 210	4	Department
	PAAS 230	Patient Assessment	Required	ANAT 201	3	College
	PHAR 201	Pharmacology	Required		3	College
	ISLM 103	Economic System in Islam	Required		2	Institution
	PATH 201	Pathophysiology	Required		3	College
	COMM 201	Communication Skills	Required		2	Institution
Level 5	ANAE 310	Pharmacology of Anesthesia	Required	PHAR 201	4	Department
	ANAE 315	Anesthesia Equipment & Supplies I	Required	ANAE 210 ANAE 220	3	Department
	ANAE 316	Investigation Procedures & Techniques	Required	ANAE 220	3	Department
	ANAE 317	Regional Anesthesia	Required	ANAE 210 ANAE 220	4	Department
	COMP 201	Computer for Health Sciences	Required		2	College
	ISLM 301	Contemporary Jurisprudential Medical Issues	Required		2	Institution
Level 6	ANAE 320	Clinical Practice I	Required	ANAE 315	2	Department
	ANAE 325	Anesthesia Equipment & Supplies II	Required	ANAE 315	3	Department

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College or Department)
	ANAE 326	Advanced Pharmacology of Anesthesia	Required	ANAE 310	4	Department
	ANAE 328	Intensive Care	Required	ANAE 310 ANAE 315 ANAE 316	2	Department
	ETHC 411	Ethics and Law for Health Professions	Required		2	Institution
	Heal 300	Community Health	Required		2	College
Level 7	RSCH 460	Research Methods for Health Sciences	Required		3	College
	ANAE 410	Principals of Diseases Pathology	Required		3	Department
	ANAE 415	Medical Problems Management	Required		3	Department
	ANAE 416	Mechanical Ventilation	Required		3	Department
	ANAE 418	Preparation for General Anesthesia	Required		3	Department
	ANAE 419	Clinical Practice II	Required	ANAE 320	3	Department
Level 8	ANAE 420	Clinical Practice III	Required	ANAE 419	3	Department
	ANAE 421	Anesthesia for Day Surgery	Required		1	Department
	ANAE 422	Anesthesia for Emergency Cases	Required		3	Department
	ANAE 423	Post-Operative Pain Management	Required		3	Department

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College or Department)
	ANAE 425	Advanced Anesthesia Techniques	Required		4	Department
	ANAE 426	Advanced Monitoring	Required		4	Department
Level 9	ANAE 501	Internship I	Required		1	Department
Level 10	ANAE 502	Internship II	Required		1	Department

* Include additional levels if needed

** Add a table for each track (if any)

Anaesthesia Technology Program Courses Description

The Bachelor of Science in Anaesthesia Technology Program consists of different disciplines that are related to anaesthesia technology healthcare services and elaborated through 49 required courses described as following:

Level 1

1. [BIOS 101] Biostatistics

This course is designed to provide students with a basic understanding of biostatistics. The course covers descriptive statistics with concepts of dispersion, central tendency measurements. Graphical and tabular displays are also covered. Simple inferential statistics involving probability, sampling, confidence intervals and tests of significance are presented. Simple linear regression and correlations are also covered. Understanding concepts and rationale for various methods are emphasized with use of computer statistical software (such as Excel, SPSS) for graphs and calculations.

2. [COMP 100] Computer Essentials

The goal of computer essentials is to provide students with the basis for understanding the concepts necessary for success in the information age. Topics covered include: hardware and software systems, system software, application software, the system unit, input and output systems, secondary storage, connectivity, the wireless revolution, and communications, the internet, the web, and electronic commerce, privacy and security multimedia, web authoring, databases, and information systems. The students will have an idea of the future and information technology, the

evolution of the computer age, how to own a microcomputer system, and how to upgrade a microcomputer system. In addition, the laboratory will expose the students to word processing, spreadsheets, database management systems, presentation packages, and communication software.

3. [ISLM 101] Islamic Culture

The course emphasizes the importance and position of morals in Islam for human life. It highlights the importance of morals and their benefits to human life that Islam is based on. On the other hand, the course shows the effects of education on morals. Moreover, the course also includes studying ten main kinds of morals and their position in Islam. These are: truthfulness, equity, patience, faithfulness, charity, humbleness, forbearance, abstinence and modesty.

4. [ARAB 101] Arabic Language 1

The course offers the students a detailed sketch on how to read and write justifiably during the syntactical lessons in which the students make initial frequent mistakes. As the students learn the terminology used in grammatical syntax, it enables them to enhance their linguistic knowledge and capabilities by in-depth analysis of the language and open discussions on some of the brief important articles.

5. [PHYS 101] General Physics

This Course is designed to give students the basic knowledge necessary to understand the basic concepts of mechanics, basic electricity, magnetism, optics and modern physics, which are relevant to their future study in the health colleges.

6. [ENG 101] General English 1

This course perspective is a self-integrated, intensive English language program for high school graduates who contemplate college. The syllabus is based on the Interactions Series of English language teaching and is constructed around the central skills of *Listening/ Speaking, Reading and Writing*, with a supportive, practice-intensive component of *Grammar*. The course is designed to bridge the gap between the general English studied in high school and the language requirements of the specialist studies students will undertake later. The course includes two midterms and a comprehensive final.

Level 2

7. [BIOL 101] General Biology

This course serves as an introduction to the basic principles of biology with emphasis on structure and function at the molecular and cellular levels. Topics include cell structure and function, cellular respiration, genetics and molecular biology. Much of the laboratory is devoted to a detailed study of the histology, anatomy and physiology of body systems, for example, digestive, urogenital, and urinary systems.

8. [ARAB 103] Arabic Language 2

The course offers a detailed sketch of the Arabic language and its origin. It explains how to construct words, sentences, essays, articles and reports. This is intervened after classes by frequent dictations to fully utilize the knowledge gained. The course also offers patterns and samples for reading which are chosen from old articles and contemporary grammar syllabus.

9. [CHEM 101] General Chemistry

This course is a comprehensive introduction in all aspects of general and organic chemistry, for freshmen students. This course will qualify the students and prepare them with chemistry knowledge to further their studies

10. [ENGL 102] General English 2

ENG102 is an intensive pre-intermediate course that follows the ENG 101 elementary course. It is a blend of general English and English for Academic Purposes. The course has been developed to meet the needs of students who must use English as a medium of communication for the studies at the university. The course develops the students' listening, reading, writing and speaking skills. The main aim is to enable the student to communicate effectively and appropriately in real life situations and to use English for study purposes.

11. [ENGL 103] English for Health Sciences

The course aims at enabling the students to read and write English texts fast and in the most efficient way possible. This is carried out through focusing on special reading skills such as scanning and interpreting charts, tables, etc. The curriculum contains ESP texts with the intention to expose the student to a maximum amount of ESP terminology. Furthermore, the course contains a medical terminology component geared towards the enhancement of the learning of English within a medical context. The course also includes a writing component designed to teach skills in technical report writing.

Level 3

12. [ANAE 210] Introduction to anaesthesia Technology

This course is an introductory course for the anaesthesia technology, that aims at introducing the students to the basic concepts of the anaesthesia technology, where the students will get exposed to anaesthesia technologist responsibilities, meaning of anaesthesia, the history of anaesthesia, types of anaesthesia, component of general anaesthesia, steps of general anaesthesia, the policy & procedure in operating room, preparation in operating theatre and safety, communication skills in operating room, an overview of some anaesthesia drugs and gases, well-being of anaesthesia technologist, importance of anaesthesia in different specialties of surgery, and medical ethics and legal issues.

13. [ANAT 201] Anatomy

The course introduces the students to the structural approach to the study of cell, tissues, organs and body systems, the relation between the various systems and organs will be outlined and discussed. Laboratory sessions are designed for examination of models and simulators of body organs and systems.

14. [PHSL 201] Human Physiology

The course introduces the students to the functional approach to the study of cells, tissues, organs and body systems. The major goals of physiology are to understand and predict the response of the body to stimuli and understand how the body maintains conditions within a narrow range of values in constantly changing environments. Laboratory sessions are designed for examination of models and simulators of body organs and systems.

15. [BIOC 200] Biochemistry

Principles underlying the chemistry of living systems by which human organisms meet needs of energy, material and information are addressed. The course focuses on structures and functions of protein, lipid, carbohydrates, body fluids, hormones and enzymes. Chemistry of metabolism and biosynthesis of nucleic acid are explained.

16. [MICR 201] Microbiology

The course provides the students with a general overview of the fundamentals of microbiology, basic chemistry and bacterial growth. The course introduces the students to cellular structure, fungi, parasites, viruses, bacteria and microbiological techniques. Infection by microorganisms, the body defenses, immunity and vaccines are explored. Methods of destruction of microbiological material and controlling pathogens are addressed. Emphasis is placed on measures of infection prevention, safety measures and universal standards for control.

17. [PSYC 201] Introduction to Psychology

This course will survey the various fields of psychology. Topics include: learning, cognition, personality, development, social interaction, and abnormal behaviour. The course will explore current approaches to psychology demonstrating how the biological, cognitive, and socio-cultural approaches to psychology combine to provide a comprehensive view of human behaviour.

18. [ANAE 220] Preoperative anaesthesia assessment

This course is showing the preoperative clinical assessment of patient, and it's important to Perform the proper clinical assessment of different patients and Identify the medical problems at their effects on decision making of the choice of anaesthesia to find out about diseases, drugs used by the patient And showing how to find out about past surgical and anaesthesia events and any complications to Perform the appropriate clinical investigations to the ASA patients status and the importance of arranging admission to Perform referral to other clinic as patient's condition indicated and to Understand the advantages and disadvantages of pre-medication and the importance of the pre-operative ward visit as a replacement of the clinic.

Level 4

19.[PAAS 230] Patient Assessment

The focus of the course is on psychosocial and physical assessment of patients in a variety of settings. Opportunities are provided in a laboratory setting to demonstrate cognitive and psychomotor competencies related to assessment of the individual client systems. The emphasis is on physical examination and historical data collection. Developmental factors and environmental stressors that influence health status are explored. The four basic methods of physical examination (inspection, palpation, percussion and auscultation) are presented and demonstrated.

20. [PHAR 201] Pharmacology

Pharmacodynamics and pharmacokinetics of drug therapy are discussed to provide a basic understanding of a client's reaction to a drug therapeutically and adversely and to predict drug interactions. Specific prototypes of selected drug classifications provide the framework for understanding the action, use, side effects and nursing implications of drugs. Techniques of administration of medication and assessment of drug effects are emphasized. Legal and ethical issues related to drug administration are stressed.

21. [ISLM 103] Economic System in Islam

The course covers the definition of the Islamic economic system, and its main features which distinguish it from other economic systems and presents the principles on which the Islamic system is based. Moreover, the principles that explore the Islamic course in the different economic active realms like (production, distribution, consumption, deal), are studied, in addition to business actions which are important to the university students.

22. [PATH 201] Pathophysiology

The course focuses on basic mechanisms underlying illness and disease as a basis for understanding pathophysiological changes that occur within the internal environment of an individual, in the presence of dysfunction or disease. The most common alterations in selected body systems are presented and clarified with relevant risk factors and epidemiology, pathophysiologic mechanisms and clinical manifestations.

23. [COMM 201] Computer for healthcare science

This course emphasizes specific tools and techniques for improving listening skills, delivering effective messages and bridging different communication styles. Through interactive lectures, tutorial, and simulations, students will work in small or large groups to apply communication tools and strategies.

Level 5

24. [ANAE 310] Pharmacology of anaesthesia

This course aims at introducing the students with the Pharmacology of anaesthesia. After completing this course, students will be able to describe the characteristics of each drug used in clinical anaesthesia, pharmacological structure, mechanism of action and routes of administration of anaesthetic drugs. They will recognize the definition, significance and value of minimum alveolar concentration (MAC) of volatile agents. Outline Side effects, drug interactions of drugs used in anaesthesia practice. Describe the pharmacology of inhalation agents, opioids, neuromuscular blockers, parasympatholytics, sympathomimetic, gaseous agents, hypnotics,

sedatives, local analgesics and antidepressants. List and define agonist, antagonist drugs, and reversal agents.

25. [ANAE 315] Anaesthesia Equipment & Supplies I

This course is showing anaesthesia equipment and supplies for the anaesthesia technology. The student learns how to prepare different tools used for anaesthesia like various sizes of laryngoscope, ETT, airways, satellites and other accessories, how to prepare anaesthesia machine, how to prepare standard monitors and understand the work plan of other accessory machines, namely suction machine, diathermy, etc.

26. [ANAE 316] Investigation procedures & techniques

This course is showing the indications of different investigation techniques and the equipment needed for each technique and how to perform each technique, how to interpret the data obtained from each investigation, preparation and needle insertion in each technique, learn and understand the practice arterial blood sampling and use of ABL machine for blood gases measurement and how to interpret acidosis and alkalosis whether respiratory or metabolic from ABL machine.

27. [ANAE 317] Regional anaesthesia

This course aims at introducing the student to basics, features of local anaesthesia. The student will expose to understanding the drugs of local anaesthetic, the clinical applications of different regional anaesthetic techniques, administration, complication of regional anaesthesia, selection of technique, premedication, resuscitation equipment and regional anaesthesia equipment and after care. In addition, the student will learn the indications and contraindications of each technique, factors affecting the quality of regional anaesthesia and the advantages and disadvantages of it.

28. [COMP 201] Computer for Health Sciences

This course is designed to provide the student with knowledge about advanced computer technology and its application in the healthcare field. It will also introduce the student to technological innovations in healthcare informatics as a discipline, clinical decision-support systems, medical expert systems, telemedicine, tele-pharmacy and Internet health applications. The course will emphasize the use of computerised health information retrieval systems, the advanced features of the Internet information resources, patient-related programs and data manipulation software for application in profession-related tasks.

29. [ISLM 301] Contemporary Jurisprudential Medical Issues

This is a complementary course to the other Islamic Culture courses. However, the course contents, teaching methodology, and the education level that will be introduced are different. The course will be addressing the most common and most pressing contemporary Islamic-related, health and technology issues. Health and information technology academicians and Islamic scholars will conduct symposia and tutorials. Students will be actively involved in tutorials and course assignments.

Level 6

30. [ANAE 320] Clinical Practice I

This course aims to introduce the students with the Practical conduct of Anaesthesia. By completing this course, students will be able to describe the anaesthetic plan, preparation for each type of anaesthesia, recognize induction, maintenance, emergence of anaesthesia, predict the complications and difficulties of each period of anaesthesia, describe patient positioning for different type of surgeries, describe signs of anaesthesia, recognize airway management, predict complications of tracheal intubation, describe neuromuscular blocking agents and reversal agents, recognize conduct of extubation.

31. [ANAE 325] Anaesthesia Equipment & Supplies II

This course is showing Advanced anaesthesia equipment and supplies for the anaesthesia technology. The student learns how to implement different tools used for anaesthesia like various sizes of laryngoscope, ETT, airways, satellites and other accessories, how to implement anaesthesia machine, how to implement advanced monitors and understand the work plan of other accessory machines.

32. [ANAE 326] Advanced Pharmacology of anaesthesia

This course aims at introducing the student to advanced pharmacology of anaesthesia. By completion of this course the student will able to describe characteristics of each drug used in clinical anaesthesia, recognize pharmacological structure of anaesthetic drugs, mechanism of action of drugs, recognize routes of drug administration, state the MAC value, definition and its significance, list the side effects, drug interactions of drugs used in anaesthesia practice, describe pharmacology of inhalational, intravenous, opioid and neuromuscular blocking agents, outline pharmacology of parasympathetic and sympathomimetic and drugs acting on cardiopulmonary and renal system.

33. [ANAE 328] Intensive care

Intensive Care Unit ICU is the hospital facility within which the highest level of continuous patient care and treatment are provided. By completion of this course the student enrolled in this course should able to define the design of ICU and its proper utilization, types of intensive care unit(ICU), the admission and discharge criteria, APACHE score, list of equipment , disposables used in ICU setting, recognize methods of cleaning, disinfection and sterilization of different equipment, demonstrate nursing care of ICU patients, patient care whether ventilated or not, transfer procedure from and to different hospital locations, monitoring and supporting system, staffing considerations, modes of ventilations and weaning from mechanical ventilation.

34. [ETHIC 411] Ethics and Law for Health Professions

The course provides the student the opportunity to explore the ethical and legal issues and concerns related to the delivery of patient care services and the administration of different health care services, with emphasis on health professional practice. Health policy, theories of ethical practice and issues related to law are discussed in relation to Islamic religion. Distinctions between legal and ethical basis for nursing actions are identified in order to provide the student with guidance in the decision-making process.

35. [HEAL 300] Community Health

This course is designed to provide the students with the knowledge, skills and attitudes necessary for community health practitioners in a variety of community-based settings. The focus of care expands from individual to family, group and the community. The clinical practice focuses upon developing and evaluating health promotion and preventive measures, family assessment and community-based home care. Specialised care of elderly and geriatric patients suffering from acute and chronic illnesses is stressed, in addition to school and occupational health practices. Application of primary health care concepts is mandatory.

Level 7

36. [RSTH 460] Research Methods for Health Sciences

The purpose of this course is to provide opportunity for the students to deepen their understanding of the steps of the research process and their application in health care fields, preliminary steps in the research proposals, designs for health professional research, sampling and methods of data collection and analysis will be analysed and discussed. Interpretation of research results for use in health care practice is emphasized. Opportunity is provided for the student to critique selected research models and to formulate relevant research questions.

37. [ANAE 410] Principle of Pathology of Diseases

This course aims at introducing the students with the Principle of Pathology of Diseases. By completion of this course student will be able to describe the basic pathogenesis of different diseases, recognize Pathological diagnosis of diseases, Histological structures of normal and abnormal cell, reading smears microscopically, describe the Pathology of respiratory, cardiovascular, blood & blood products, endocrinology, CNS (Central & peripheral), muscular, liver, and renal diseases

38. [ANAE 415] Medical Problems Management

This course summarizes the common diseases that may interfere with anaesthesia like diseases of liver failure, that may interfere with anaesthesia, diseases of the renal system, diseases of the endocrine system, the diseases of the central Nervous system, Obstetric, pediatric diseases, severe diseases of the blood and blood products system and abnormal diseases that are contraindicated to anaesthesia.

39. [ANAE 416] Mechanical Ventilation

This course shows the principle of mechanical ventilation and classification, types of ventilation and Sterilization, methods of ventilators and the basic application of ventilators. The course enables the students to learn how to make a decision of choosing the right principle of ventilator for a specific patient, and describe the differences in management plans between adult & pediatric patients.

40. [ANAE 418] Preparation for General Surgery

This course aims at introducing the students with anaesthetic preparations for general surgery. By completion of this course, students will be able to demonstrate history-taking of a patient, develop physical examination, describe special investigations under supervision of his

consultant, predict perioperative morbidity and mortality and explain, justify preoperative preparations for different, general surgical specialties.

41. [ANAE 419] Clinical Practice II

This course aims at introducing the students with advanced practical conduct of obstetrics & gynecological and pediatrics anaesthesia. By completion of this course, students will be able to recognize the applied anatomy and physiology of pregnancy and children compared to the adults. Recognize how to apply analgesia and anaesthesia for women in labor, instrumental (e.g. forceps or venous) or caesarean section delivery by spinal or epidural analgesic techniques, describe how to take care of critically ill parturient and neonate, recognize airway management, neonatal monitoring and regional anaesthesia in pediatrics. List effects of drugs, pain and analgesia on the mother and fetus, specific drugs used in pediatrics anaesthesia, specific neonatal operations, gynecological procedures and how to choose the plan of anaesthesia for them. Describe pediatrics preoperative preparation, recognize pharmacology of relevant drugs, recognize indication and contraindication for spinal and epidural analgesia, recognize monitoring of mother and baby, recognize how to deal with emergencies in obstetrics, gynecology and pediatrics, list the complications of regional anaesthesia and analgesia, recognize assessment of the pregnant women presenting for anaesthesia and analgesia, positioning of the patient, describe complications of laparoscopic surgery, and postoperative care.

Level 8

42. [ANAE 420] Clinical practice- III

This course aims at providing the students with a framework for the conduct of anaesthesia for Orthopedic (ORTHO), Ear, Nose, Throat (ENT) and Cardiac surgery. By completion of this course, students will be able to describe preoperative assessment of patient, required investigations before surgery, pathophysiological considerations, risk factors, suitable techniques of anaesthesia, monitoring, surgical considerations, coagulation control, the essential component of cardiopulmonary bypass circuit, control of circulation after bypass and postoperative intensive therapy

43. [ANAE 421] anaesthesia for day surgery

This course aims at introducing the students with a day-case patient that is admitted for investigation or a planned non-resident basis. By completion of this course, students will be able to define the day surgery cases, understand the role of the day surgery, apply the policy and procedures of the day surgery unit, receive and prepare the day surgery patients, prepare the materials and instruments used in anaesthesia for day surgery patient, Understand the documentation and charting used in day surgery, recovery and discharge criteria of the patient from the hospital.

44. [ANAE 422] anaesthesia for Emergency Cases

This course is an introductory course to learn how to deal with emergency cases. And to describe the function of various subspecialties involved in managing emergency cases in different clinical emergency scenarios and clinical presentation also to describe clinical presentation of obstetric emergency cases, various anaesthesia provided and clinical presentation of adult's multiple trauma & various anaesthesia provided.

45. [ANAE 423] Post-Operative Pain Management

This course is showing that pain is a subjective, multidimensional experience unique to the individual and the distinction between pain and nociception. Appreciate that pain is a conscious, aversive aspect of somatic awareness, the product of complex, central, nociception-induced processing, and not a primitive sensation. Understand the classification of opioid compounds, Identify & differentiate the various subclasses & specific drugs that are used clinically and are agonists at the mu-opioid receptor. Understand the differences in clinical effects among pure opioid agonists, partial agonists, mixed agonists-antagonists, and antagonists.

46. [ANAE 425] Advanced Anaesthesia Techniques

This course is showing To understand the main differences between adult and pediatric in terms of anatomy, physiology and pharmacology and teach the definitions of preterm, infant and child, how to approach children in the preoperative visit, how to explain to parents about goals of preoperative visit and preoperative fasting hours as well as technique of anaesthesia and methods of postoperative pain relief, appropriate method of transfer of pediatric patient to OR accompanied by his/her mother and how to deal with pediatric case upon receiving in the OR waiting area

47. [ANAE 426] Advanced Monitoring

This course is General introduction to invasive monitoring and Policy and procedure of inserting invasive lines, duties of anaesthesia technologist and terms of sterilization during invasive lines insertion and showing the complications related to techniques and showing brief description of common invasive monitoring procedures, Description of different approaches of invasive monitoring, Description of internal and external jugular venous cannulation and How to deal with complications during insertion of invasive lines.

[Internship Program Structure](#)

The internship program is one calendar year in duration (48 weeks) including official holidays. The program is designed in a form of two practicum courses offered in blocks of training periods.

48. [ANAE 501] Internship - 1

Field Rotations with Saudi teaching and private hospitals as well as Rotation through various theatre rooms. During these rotations, Students will be able to perform paramedic skills under the direct supervision of the coordinator assigned preceptor. During this clinical rotation, students -under supervision- will do the following:

- ❖ Knowledge and Understanding
 - Enhance students' knowledge of physical and psychological care for patients with a variety of health problems in different Anaesthesia settings.
 - Recognize the application of anaesthesia knowledge and understanding of the potential implications of surgery and anaesthesia for individual patients in a hospital setting.

- Define the medical conditions that affect Anaesthesia and how to manage them.

❖ Skills:

- Recognize critical thinking skills, evidence based practice, and planning care for patients.
- Ability to build a database of patient experiences that serves to help in clinical decision making and pattern recognition.
- Illustrate the ability to use computerised medical equipment, internet, and search engine for patient treatment.
- Show the ability to use computing tools for seminars, case studies, and presentations.
- Integrate current research findings into the development and implementation of health care for adult, /child and their families
- Communicate effectively with clients, and families, and all members of the health care Team in selected clinical areas.

❖ Values:

- Demonstrate professional role that are guided by standard principles and code of conduct
- Collaborate with various health care team members to provide holistic care for patients in different anaesthesia clinical settings
- Demonstrate the leadership skills through patient's assessment and care and Show increased sense of accepting Feedback

49. [ANAE 502] Internship - 2

Field Rotations with Saudi teaching and private hospitals as well as rotation through various theatre rooms. During these rotations, Students will be able to perform paramedic skills under the direct supervision of the coordinator assigned preceptor. During this clinical rotation, students -under supervision- will do the following:

❖ Knowledge and Understanding:

- Enhance students' knowledge of physical and psychological care for patients with a variety of health problems in different Anaesthesia settings.
- Recognize the application of anaesthesia knowledge and understanding of the potential implications of surgery and anaesthesia for individual patients in a hospital setting.
- Define the medical conditions that affect anaesthesia and how to manage them.

❖ Skills:

- Recognize critical thinking skills, evidence-based practice, and planning care for patients
- Ability to build a database of patient experiences that serves to help in clinical decision making and pattern recognition.
- Illustrate the ability to use computerised medical equipment, internet, and search engine for patient treatment
- Show the ability to use computing tools for seminars, case studies, and presentations
- Integrate current research findings into the development and implementation of health care for adult, /child and their families
- Communicate effectively with clients, and families, and all members of health care Team in selected clinical area

❖ Values:

- Demonstrate professional role that are guided by standard principles and code of conduct
- Collaborate with various health care team members to provide holistic care for patients in different anaesthesia clinical settings
- Demonstrate the leadership skills through patients assessment and care and Show increased sense of accepting Feedback

Program learning Outcomes Mapping Matrix

Align the program learning outcomes with program courses, according to the following desired levels of performance (**I = Introduced P = Practiced M = Mastered**)

Course code & No.	Program Learning Outcomes										
	Knowledge and understanding			Skills						Values, Autonomy, and Responsibility	
	K1	K2	K3	S1	S2	S3	S4	S5	S6	V1	V2
ARAB 101	I								I		
BIOS 101	I		I	I		I			I		
COMP 100	I			I							
ENGL 101						I	I		I		I
ISLM 101	I								I	I	
PHYS 101	I	I		I		I					
ARAB 103	I								I	I	I
ENGL 102							I		I		I
BIOL 101	I			I		I			I		

CHEM 101	I			I							
ENGL 103	I						I	I	I		
ANAT 201	I			I			I				I
ANAE 210	I	I		I			I	I	I	I	I
PHSL 201	I			I		I					I
BIOC 200	I						I	I			I
MICR 201	I			I							I
PSYC 201	I					I	I		I		I
PAAS 230	I			I	I	I	I		I	I	I
PHAR 201	I			I	I			I	I	I	I
ISLM 103	P								P	P	

Course code & No.	Program Learning Outcomes		
	Knowledge and understanding	Skills	Values, Autonom y, and

										Responsibility	
	K1	K2	K3	S1	S2	S3	S4	S5	S6	V1	V2
ANAE 220	P	I		P	I	P	P	P	P	P	P
PATH 201	P			P	P	P					P
COMM 201	P								P	P	P
ANAE 310	P	P		P	P	P		P	P	P	
ANAE 315		P	I		P		P	P	P		P
ANAE 316	P	P		P			P	P	P	P	P
ANAE 317	P	P		P	P		P	P		P	
COMP 201	P						P		P		P
ISLM 301	P				P				P	P	
ANAE 320				P				P	P	P	P
ANAE 325		P	P	P	P	P	P	P	P	P	P
ANAE 326	P	P		P	P	P	P	P		P	
ANAE 328	P	P		P	P	P	P	P		P	P
ETHC 410	P								P	P	P

HEAL 300	P		P			P	P				P
RSCH 450			P			P				P	P
ANAE 410	P	P		P		P				P	P
ANAE 415	M	M	M	M	M	M	M	M	M		M
ANAE 416	M	M			M	M	M	M		M	M
ANAE 418	M	M			M	M	M			M	
ANAE 419				M	M	M	M	M	M	M	M

Course code & No.	Program Learning Outcomes										
	Knowledge and understanding			Skills						Values, Autonomy, and Responsibility	
	K1	K2	K3	S1	S2	S3	S4	S5	S6	V1	V2
ANAE 420				M	M	M	M	M	M	M	M
ANAE 421	M	M					M		M		M

ANAE 422	M	M	M		M	M	M	M	M	M	M
ANAE 423	M	M		M		M	M	M	M	M	
ANAE 425	M	M	M	M	M	M	M	M		M	M
ANAE 426	M	M	M	M	M	M	M	M	M	M	M
ANAE 501				M	M	M	M	M	M	M	M
ANAE 502				M	M	M	M	M	M	M	M