

Forensic Medicine

Goal

The goal of teaching Forensic Medicine in the undergraduate medical course is to produce a physician who will be well informed and alerts about his/her medico-legal responsibilities and is capable of being discharging medico-legal duties in medical practice.

Departmental Objectives:

At the end of the course in Forensic Medicine, the undergraduate student will be able to:

- ❑ Examine and prepare reports or certificates in Medico-legal cases/situations in accordance with the law of land.
- ❑ Perform medico-legal postmortem and interpret autopsy findings and results of other relevant investigations to logically conclude about the cause, manner and time since death.
- ❑ Practice & apply medical ethics, etiquette, duties, rights, medical negligence and legal responsibilities of the physician toward patient, profession, society, state and humanity at large.
- ❑ Identify & apply relevant legal/ court procedures applicable to the medico-legal/ medical practice.
- ❑ Collect preserve and dispatch specimens in medico-legal/ postmortem cases and other concerned materials to the appropriate Government agencies for necessary examination.
- ❑ Diagnose, apply principles of therapy & understand medico-legal implications of common poisons.
- ❑ Apply general principles of analytical, environmental, occupational and preventive aspects of toxicology.

List of Competencies to acquire

1. Practice Forensic Medicine according to the expectation of the community and maintaining the dignity & honour of the medical profession.
2. Perform ethical practice.
3. Capable to give deposition in the court of law as a medical expert.
4. Collect, preserve & despatch the medico-legally important specimen.
5. Keep the proper records.
6. Proper examination of physical assault victim.
7. Perform medico-legal examination including autopsy and interpret the findings.
8. Prepare certificates and reports according to the law of the land.
9. Write discharge certificate and death certificate properly and authentically as per ICD
10. Supervise and guide the member of a medical team regarding the ethical and legal consequence related to medical issues.
11. Handling dead body ethically & morally
12. Write injury and medical certificate correctly

Finally, on the basis of above context, those who are concern with Forensic Medicine should initiate the thinking to redesign the curriculum where appropriate and give emphasis on those aspects in teaching learning and assessment of the students in under graduate medical education in Forensic Medicine.

Distribution of teaching - learning hours

Lecture	Tutorial	Practical	Other classes (Integrated Teaching / Assignment)	Total teaching hours	Formative Exam		Summative exam	
					Preparat ory leave	Exam time	Prepara tory leave	Exam time
80 hrs	55 hrs	55 hrs	05 hrs	195 hrs	15 days	15 days	15 days	20 days
<i>(Time for exam. preparatory leave and formative & summative assessment is common for all subjects of the phase)</i>								

Teaching-learning methods, teaching aids and evaluation

Teaching Methods				Teaching aids	In course evaluation
Large group	Small group	Self learning	Others		
Lecture Integrated teaching	Tutorial Practical Demonstration	Assignment, self assessment & self study.	Video & slide presentation. Community Oriented teaching and learning.	Multimedia. Camera (Still & Video) Overhead Projector (OHP). Slide Projector (SP). Black board.	<ul style="list-style-type: none"> • Item Examination • Card final • Term Examination • Term final (written, oral+ practical)

2nd Professional Examination:

Marks distribution of Assessment of Forensic Medicine:

Total marks – 300

- Written =100 (MCQ-20, SAQ-70+ formative assessment marks 10)
- Structured oral examination= 100
- Practical=50, OSPE=40 & Others (PM report, Injury certificate & Practical khata)=10

Related Equipments, Aids, Specimen / Models:

Post-mortem video tape, TV, Cassette Player (available on different events/topics), Module on Teaching Health Ethics (WHO, CME and BM&DC)

Sexual Assault examination kit

Autopsy set, dummy and photographs showing all major types of injuries & other cases

Specimen of poisons and related instruments (e.g. Ryles tube, stomach wash tube etc.)

Weapons:

Mechanical weapons

Firearms and ammunitions

Learning Objectives and Course Contents in Forensic Medicine

Learning Objectives	Contents	Teaching hours
<p>Student will be able to:</p> <ul style="list-style-type: none"> • define Forensic Medicine, Medical Jurisprudence & differentiate between them. • describe different courts in Bangladesh and their powers. • describe various court procedure and deposition in the court. • describe various medico-legal systems. • write various medical documentary evidences (certificate, reports & dying declaration) • define and describe different types of death. 	<p><u>CORE:</u></p> <ul style="list-style-type: none"> • Discipline of Forensic Medicine and its subdivisions & Medical Jurisprudence. • Courts in Bangladesh and their jurisdiction: <ul style="list-style-type: none"> □ Supreme Court, High Court, Sessions Court, Additional Sessions Court, Magistrates Court, Metropolitan Magistracy. • Court procedures: <ul style="list-style-type: none"> □ Summons, conduct money, oath, affirmation, perjury, types of witness, types of examination, recording evidence, court questions, conduct of doctor in witness box, medical examiner's system. <p><u>Additional:</u></p> <ul style="list-style-type: none"> • Coroner, medical examiner & continental Medico-legal systems. <p><u>CORE:</u></p> <ul style="list-style-type: none"> • Medical certification and Medico-legal reports including dying declaration & medical documentary evidence. • Death: <ul style="list-style-type: none"> □ Definition, types: somatic, cellular and brain-death.Sudden death. 	<p>1 hr.</p> <p>2 hrs.</p> <p>2 hrs.</p> <p>2 hr.</p> <p>1 hr.</p> <p>3 hr.</p>

Learning Objectives	Contents	Teaching hours
<ul style="list-style-type: none"> • identify and interpret different signs and modes of death. • diagnose deaths due to environmental cause • identify the artefacts on the dead body- both ante-mortem & post-mortem • manage dead body • write death certificate as per ICD <p>Students will be able to identify & differentiate:</p> <ul style="list-style-type: none"> • rigor Mortis, saponification, Putrefaction, mummification & maceration. • determination of time since death. • identify & describe the eye & skin changes after death. 	<ul style="list-style-type: none"> • Natural and unnatural death: <ul style="list-style-type: none"> □ Signs of death. □ Modes of death. • Presumption of death and survivorship. • Suspended animation. • Death due to occupational and environmental causes e.g. <ul style="list-style-type: none"> □ Chronic metallic poisoning (Arsenic, lead). □ Starvation. □ Electrical injuries. □ Snake bite. □ Food poisoning. □ Precaution in handling high risk cases during Autopsy (AIDS, Hepatitis). □ Handling and management of dead body □ Death certificate as per ICD <p>Changes after death:</p> <ul style="list-style-type: none"> • Cooling of body, lividity, Rigor mortis. • Changes of Eyes & Skin. • Putrefaction, mummification, adepocere. • Principles of estimation of time of death. • Post-mortem artefacts. 	<p>2 hrs.</p> <p>2 hrs.</p> <p>2 hr.</p> <p>2 hr.</p> <p>2 hrs.</p> <p>2 hr.</p> <p>2 hr.</p> <p>2 hr.</p> <p>2 hr.</p>

Learning Objectives	Contents	Teaching hours
<p>Students will be able to:</p> <ul style="list-style-type: none"> • establish identity of living & dead persons (Age, sex, race). • determine the cause & nature of death from the trace evidences. • mention medico-legal importance of blood grouping, typing to establish identification, paternity & maternity. <p>Students will be able to demonstrate about:</p> <ul style="list-style-type: none"> • inquest done by police, magistrate and coroner. • autopsy • exhumation & its medicolegal importances. <p>Perception about safe working & proper utilization of a modern morgue & Laboratory facilities.</p>	<p>CORE:</p> <p>Identification:</p> <ul style="list-style-type: none"> • Definition, Identity of living persons & dead bodies. • Race, age, sex. • Identification in mass death & examination of human remains. • Trace Evidence. • Forensic – Radiology. • Forensic Dactylography. • Forensic Odontology. • DNA Profiling. • Bioinformatics <p>Blood groups:</p> <ul style="list-style-type: none"> • Medico-legal importance; blood grouping. HLA typing, DNA Profiling. <p>CORE:</p> <p>INQUEST Report:</p> <p>Medico-legal autopsies:</p> <ul style="list-style-type: none"> • Medico-legal post-mortem. • Objectives, procedures, formalities of Medico-legal autopsies. Obscure autopsy, Negative autopsy. • Special procedures in suspected poisoning cases. • Examination of mutilated bodies and exhumation. <p>Additional:</p> <ul style="list-style-type: none"> • Criteria of a modern mortuary. 	<p>10 hrs.</p> <p>2 hrs.</p> <p>2 hrs.</p> <p>2 hrs.</p> <p>1 hr.</p> <p>2 hrs.</p> <p>2 hrs.</p> <p>2 hrs.</p> <p>2 hrs.</p> <p>2 hrs.</p>

Learning Objectives	Contents	Teaching hours
<p>Students will be able to</p> <ul style="list-style-type: none"> • describe different types of wounds, produced by different weapons. • identify the cause of death due to wounds. • identify the nature of the wounds. • differentiation of deaths due to different regional injuries. 	<p><u>CORE:</u></p> <p>Wounds and its types & M.L Aspects:</p> <ul style="list-style-type: none"> • Mechanical injuries. • Fire arm & injuries • Blast injury & injuries caused by explosive. • Cause of death due to wounds & its legal aspects. • Age of wound (Healing of wound) • Battered Wives and battered baby syndrome. • Mass disaster and its management <p>Additional:</p> <ul style="list-style-type: none"> • Differences between accidental, suicidal and homicidal wound. <p>Regional injuries:</p> <ul style="list-style-type: none"> • Head, neck, chest, abdomen, genitalia. • Extremities. <p>Injuries due to physical agents: Thermal, chemical, electricity, lightning & radiation injuries.</p> <p>Wounds certification:</p> <ul style="list-style-type: none"> • Medicolegal aspect of wounds (Simple & Grievous) 	<p>12 hrs.</p> <p>2 hrs.</p> <p>2 hr.</p> <p>3 hr.</p> <p>3 hrs.</p> <p>3 hrs.</p>

Learning Objectives	Contents	Teaching hours
<p>Students will be able to</p> <ul style="list-style-type: none"> • identify various forms of battery & their medico-legal importances. • diagnose various forms of asphyxial deaths, and their medico-legal aspects. • diagnose Pregnancy & delivery with their medico-legal importances. 	<ul style="list-style-type: none"> • Violence against women. • Domestic violence. <p><u>Additional:</u></p> <ul style="list-style-type: none"> • Cot death, SIDS • Death due to neglect <p><u>CORE:</u></p> <p>Asphyxial deaths:</p> <ul style="list-style-type: none"> • Drowning, hanging, throttling and strangulation & suffocation • Traumatic Asphyxia <p><u>Additional:</u></p> <ul style="list-style-type: none"> • Sexual Asphyxia. <p><u>CORE:</u></p> <ul style="list-style-type: none"> • Pregnancy signs & pregnancy period in the living and in the dead. Medicolegal importance of pregnancy • Delivery: signs of recent and remote delivery in the living and dead. 	<p>2 hr.</p> <p>2 hrs.</p> <p>10 hrs.</p> <p>5 hrs.</p>

Learning Objectives	Contents	Teaching hours
<p>Students will be able to:</p> <ul style="list-style-type: none"> define & diagnose abortion its types & complications & medicolegal importances. differentiate between criminal and justifiable abortion. describe medico-legal importances of viable age. <ul style="list-style-type: none"> describe collection, preservation, and dispatch of viscera, blood and body fluid for chemical analysis. differentiate between true & false virginity, impotency & sterility. describe – Procedure of examination of victim or accused. identify sign & symptoms of rape & other sexual offences with their medico-legal importances. describe different sexual deviations, artificial insemination with their medico-legal importance. 	<p><u>CORE:</u> Abortion & its legal bearing.</p> <ul style="list-style-type: none"> Spontaneous, Artificial-justifiable and criminal abortion, delivery <p>Infanticide:</p> <p><u>Additional:</u></p> <ul style="list-style-type: none"> Foeticide and viability Definition and Medico-legal considerations of viability; Determination age of foetus. Foeticide & IUF death. <p><u>CORE:</u></p> <p>Biological fluids and stain: Collection</p> <ul style="list-style-type: none"> Collection, preservation, dispatch of viscera & blood & body fluids for chemical analysis. Impotency, sterility, virginity and defloration. Artificial insemination and other artificial methods of conception with medico-legal implication. Surrogated mother & baby. <p>Sexual offences:</p> <ul style="list-style-type: none"> Natural: Rape, Adultery, Incest. Unnatural: sodomy, Lesbianism, Bucculcoitus, Bestiality <p><u>Additional:</u></p> <ul style="list-style-type: none"> Sexual perversions. Paternity and maternity. 	<p>2 hrs.</p> <p>2 hrs.</p> <p>2 hrs.</p> <p>2 hr.</p> <p>2 hr.</p> <p>2 hrs.</p> <p>2 hrs.</p> <p>5 hrs.</p> <p>2 hrs.</p>
<p>Students will be able to:</p> <ul style="list-style-type: none"> describe how to diagnose a case of mental disorder. describe how to fix-up civil, criminal and social responsibilities of an insane person. 	<p style="text-align: center;">Forensic Psychiatry</p> <p><u>CORE:</u></p> <ul style="list-style-type: none"> Types of mental disorder, lucid interval, testamentary capacity. Criminal responsibility of an insane person. Diminished responsibility. True insanity and feigned insanity: Important terms of Forensic Psychiatry. Civil & Social responsibilities. 	<p>4 hrs.</p>

Learning Objectives	Contents	Teaching hours
<p>Student will be able to:</p> <ul style="list-style-type: none"> explain the codes of medical ethics & state legislations. <p>“HEALTH ETHICS”</p> <ul style="list-style-type: none"> describe the functions and disciplinary control of BM&DC. describe the rights and privileges of a registered medical practitioner. describe the patients' rights. describe the professional negligence and its legal responsibilities. describe consent and its type. <ul style="list-style-type: none"> describe Workmen’s compensation act, Medical maloccurrence, product liabilities & mercy killing with their medico-legal importances. 	<p>Medical Jurisprudence</p> <p><u>CORE:</u></p> <ul style="list-style-type: none"> Code and law of medical ethics, its history and Geneva declaration, Tokyo declaration & other declarations. Bangladesh Medical & Dental Council (BMDC), its constituents, functions and disciplinary control. Rights and privileges of a registered medical practitioner & rights of patients. Professional secrecy & privileged communication Medical Malpractice: civil & criminal, Negligence, Misconduct. “<u>PHYSICIAN-PATIENT RELATIONSHIP</u>” Components of the physician-patient relationship <u>Fairness and Equity</u> <u>Specific Health Issues</u> <u>Jargons in the field of medical ethics.</u> <u>CODE OF MEDICAL ETHICS OF BM&DC</u> Duties of a medical practitioner towards his patient and the society, Professional infamous conduct/misconduct. Precautions against professional negligence. Consent Duties and responsibilities of a doctor. Medical Maloccurrence & Product Liabilities, vicarious liability. <u>Additional:</u> Euthanasia or Mercy killing. Organ transplantation Act. Consumer protection Act. Workmen’s compensation Act. 	<p>10 hrs.</p> <p>6 hrs</p> <p>4 hrs</p>

Learning Objectives	Contents	Teaching hours
<p>Students will be able to:</p> <ul style="list-style-type: none"> • define a poison. • describe the factors modifying the action of poisons. • classify poisons. • describe the duties of a doctor in case of poisoning. • outline the principles of management of acute poisoning. • describe post-mortem appearances of respective poisoning cases. <ul style="list-style-type: none"> • describe post mortem appearances in the dead body of the poisoning cases. 	<p style="text-align: center;">Toxicology</p> <p><u>CORE:</u> General aspects of poisoning:</p> <ul style="list-style-type: none"> • Forensic Toxicology & general toxicology. • Poisons. • Factors modifying the action of poison. • Antidote. • Classification of poisons. • Principles of Management of acute & chronic poisoning. • <u>Corrosive poisons</u>: strong acids & alkalis. • <u>Metallic poisons</u>: Lead, Arsenic and Copper. • <u>Delirients</u>: Dhatura, Cannabis. • <u>Somniferous agents</u>: Opium and its derivatives Hypnotics – Barbiturate. • <u>Inebriates</u>: Alcohol, Kerosine. • <u>Gaseous poisons</u>: Carbon monoxide, Chlorine & CO₂, Cooking gas (methane). • Insecticides: Organo-phosphorus & chlorocompounds. • Snake Bite. • Potka fish(Puffer fish) 	<p>20 hrs.</p>

Learning Objectives	Contents	Teaching hours
<p>Students will be able to:</p> <ul style="list-style-type: none"> • performing medico-legal cases individually. • performing medico-legal autopsies under supervision. • attend the court as a witness and dispose there. <ul style="list-style-type: none"> • prepare/write certificates on injury cases, births, deaths, sickness & fitness, medical, discharge etc. • write reports on medico-legal autopsies. • prepare dying declaration. • recognize medico-legal cases individually. <p>Students will be able to:</p> <ul style="list-style-type: none"> • explain the procedures of examination of sexual offences. • explain and describe the procedure of post mortem examination. • explain the procedures of determination of age. • describe the suspected poisoning cases and can describe the emergency management of an intoxicated patient in the ward. 	<p style="text-align: center;">Tutorial & Observations</p> <p><u>CORE:</u></p> <ul style="list-style-type: none"> • Observation of ten medicolegal autopsies. • Injuries in the casualty department and weapons in the Forensic Medicine department. • Specimens of poisons. • Age estimation from bones by X-rays. • Observation/examination of intoxicated persons in the ward (Indoor). • Examination of victim and accused of sexual offences in the Forensic Medicine department. <p style="text-align: center;">Practical Skill</p> <p><u>CORE:</u> Preparation of certificates on following: Medico-legal situations:</p> <ul style="list-style-type: none"> • Injury certificates, medical certificate & discharge certificate • Birth and death, Physical fitness & sickness certificates. • Autopsy report writing of ten cases • Dying declaration. • Insanity. • Age certificate. • Certificates of sexual assault. <p><u>CORE:</u></p> <ul style="list-style-type: none"> • Examining cases of sexual offences. • Post mortem examination. • Determination of age. <p>Management of Poisoning:</p> <ul style="list-style-type: none"> • Stomach wash. • Visit to court, police station, DNA lab, OCC, Forensic lab. 	<p>10 hours</p> <p>2 hours</p> <p>2 hours</p> <p>3 hours</p> <p>2 hours</p> <p>2 hours</p> <p>3 hours</p> <p>3 hours</p> <p>4 hours</p> <p>2 hrs.</p>

Existing summative assessment of Forensic Medicine

Assessment systems and mark distribution.

Components	Marks	Total Marks
Formative assessment	10	10
WRITTEN EXAMINATION		
MCQ	20	
SAQ	70	90
<i>Practical Examination</i>		100
ORAL EXAMINATION (Structured).		100
Grand Total		300

- There will be separate Answer Script for MCQ.
- Pass marks 60 % in each of theoretical, oral and practical.

Example of a “Format” for Integrated Teaching

Teacher of Anaesthesiology	Teacher of Pharmacology	Teacher of Medicine	<i>Teacher of Forensic Medicine</i>
Hazards of anaesthesia and causes of death, injury and disability.	The Pharmacological aspects of opium and opioids.	Clinical aspects of acute opium and opioids poisoning.	<ul style="list-style-type: none"> <input type="checkbox"/> When and how far anaesthetists are responsible for such death? <input type="checkbox"/> Legal responsibilities of an anaesthetist. <input type="checkbox"/> Forensic aspects of acute opium and opioid poisoning. <input type="checkbox"/> Determination of causes of death due to above poison. <input type="checkbox"/> Methods for determination and confirmation of the poison.

Program for Integrated teaching

Topics	Learning Objective	Teaching & Learning Methods	Assessment	Department
<ul style="list-style-type: none"> • Sudden natural death – Medicine + F. Medicine. • Clinical toxicology – Pharmacology. + F.Medicine 	Students will be able to: <ul style="list-style-type: none"> • Identify sudden natural death cases. • Identification and legal aspects of deaths due to poisoning. 	Lectures & Seminars		Medicine & Forensic Medicine
<ul style="list-style-type: none"> • Identification and blood group & inheritance. • Blood Transfusion hazards and death. • Determination of parenthood. • Legal responsibility of a blood transfusion officer. 	Students will be able to: <ul style="list-style-type: none"> • Ascertain legitimacy and paternity of a child. 			Blood Transfusion & Forensic Medicine
<ul style="list-style-type: none"> • Legal responsibilities of a Radiologist. • Determination of 'bone age. • Detection of foreign bodies in victims of crime. • Diagnosis – pregnancy etc. • Ultra-sonographic diagnosis of pregnancy. • Radiological hazards (hazards of radiation). 	<ul style="list-style-type: none"> • Ascertain age of victim (person) from radiological studies. • Diagnose pregnancy. 			Radiology & Forensic Medicine
Toxicological and forensic aspect <ul style="list-style-type: none"> • Common poisons. • Atropine. • Morphine and its derivatives- heroin /phensidyl • Tranquillisers. • Barbiturates. • Alcohol. • Cannabis indica in different forms. 	<ul style="list-style-type: none"> • Identify the P.M Findings in case of these poisons. 			Pharmacology & Therapeutics & Forensic Medicine
Insecticides / pesticides <ul style="list-style-type: none"> • Organophosphorus compounds. • Chlorocompounds. 	-Do-			
<ul style="list-style-type: none"> • Classification and definition of mental disorders. • Mental disorders and crime. • Mental disorders and Civil and Criminal responsibilities. 	<ul style="list-style-type: none"> • Diagnose a case of mental disorder & fix up his civil, criminal & social responsibilities. 			Psychiatry & Forensic Medicine

Continued

<ul style="list-style-type: none"> • legal aspect and clinical aspect. • Injuries in general. • Head injury and neck injury. • Chest injuries. • Abdominal injuries. • Burns and scalds. 	<ul style="list-style-type: none"> • Identify & interpret these injuries in living and dead bodies. 			Surgery & Forensic Medicine
<ul style="list-style-type: none"> • Anaesthetic hazards and causes of death • Respiratory failure in poisoning. 	<ul style="list-style-type: none"> • Identify death due to anaesthetic hazards. 			Anaesthesiology & Forensic Medicine
<ul style="list-style-type: none"> • Inflammation • Infection • Histopathological studies: <ol style="list-style-type: none"> 1. Antemortem wounds. 2. Post-mortem wounds. 3. Lungs and other viscera in asphyxial death and correlation with pneumonia and pulmonary oedema. 4. Detection of bloodstain and seminal stain. • Pathological study of hair: <ol style="list-style-type: none"> 1. Pathological studies of sudden death. 2. Pregnancy tests. 3. H.L.A., blood group and paternity. 	<ul style="list-style-type: none"> • Understand the pathological changes in these conditions. 			Pathology & Forensic Medicine
<ul style="list-style-type: none"> • Pregnancy. • Abortion. • Labour. • Lactation. 	<ul style="list-style-type: none"> • Understand how to diagnose these cases with their medico-legal importance. 			Obstetric & Gynaecology & Forensic Medicine

Academic Schedule for Forensic Medicine

2nd Phase

<i>1st TERM</i>				<i>2nd TERM</i>								
1	2	3	4	5	6	7	8	9	10	11	12	
<ul style="list-style-type: none"> ❑ Forensic Medicine, Medical Jurisprudence ❑ HEALTH ETHICS ❑ BMDC, Rights & Privileges of Doctors, Code & law of medical ethics, Professional Secrecy. ❑ Inquest, Medical certificate, Medicological reports including dying declaration, Courts procedures, Medico-legal systems. ❑ Malpraxis, Consent, Duties of medical practitioners. ❑ Death, Changes after death, identification, Medical-legal autopsy ❑ Asphyxial death ❑ Mass disaster ❑ DNA profiling 				Lecture-40	Internal assessment	<ul style="list-style-type: none"> ❑ Wounds, Regional injure injuries due to physical agents, Wound certification, Vehicular injuries. ❑ Pregnancy and delivery, Abortion, Infanticide, Biological fluid/ swabs preservation and despatch, Sexual offences, Impotence and sterility, Artificial insemination and disputed paternity and maternity, Forensic psychiatry ❑ General aspect of poisoning and its classification, Medicolegal Autopsy in poisoning, Preservation and despatch of viscera, management of acute poisoning. ❑ Strong acids and alkalis, Metallic poison, Deliriant poison, inebriants. ❑ Gaseous poisons, Insecticides, Animal poison ❑ Assisted reproduction ❑ End life care 				Lecture-40	Internal Assessment	Practical 25 hrs. Tutorial 25 hrs.

• **Hours of Teaching:**

- **Large group**
 - * Lecture - 80 hours.
 - **Small group**
 - * Practical - 55 hours.
 - * Tutorial - 55 hours.
 - * Integrated teaching/ Assignment - 5 hours.
- Total = 195 hours.**

Summary of the Forensic Medicine Academic Programme

	1st Term	2nd Term	Total
Lecture/Revision	40 hrs	40 hrs	80 hrs
Practical/ Demonstration	30 hrs	25 hrs	55 hrs
Tutorial	30 hrs	25 hrs	55 hrs
Integrated Teaching/Assignment	3 hrs	2 hrs	5 hrs
Total	-----	-----	195 hrs