## COMPETENCY BASED MEDICAL EDUCATION IN FORENSIC MEDICINE & TOXICOLOGY

## **TOTAL HOURS OF TEACHING: 125**

| 2 <sup>nd</sup> Professional (4 <sup>th</sup> Semester)        | 50 hours  |
|--|-----------|
| 3 <sup>rd</sup> Professional Part I (5 <sup>th</sup> Semester) | 38 hours  |
| 3 <sup>rd</sup> Professional Part I (6 <sup>th</sup> Semester) | 37 hours  |
| Total  | 125 hours |

| Sr.<br>No. | Competency<br>No. | Competency  | Dom<br>ain | Level<br>(K/KH/SH/P) | Core<br>(Y/N) | Practical                   |
|------------|-------------------|---|------------|----------------------|---------------|-----------------------------|
| 1          | FM 14.1           | Examine and prepare Medico-legal report of an injured person with different etiologies in a simulated/supervised environment  | S          | SH/P                 | Y             | → Injury report writing – 5 |
| SLO        | FM 14.1_1         | The student should be able to write all the <u>preliminary data</u> of the case of an injured person with different etiologies in a simulated/supervised environment with obtaining history of the case and writing two identification marks. | S          | SH                   | Y             |                             |
| SLO        | FM 14.1_2         | The student should be able to <u>identify the injuries</u> with different etiologies in a simulated/supervised environment.   | S          | SH                   | Y             |                             |
| SLO        | FM 14.1_3         | The student should be able to <u>describe the injuries</u> with different etiologies with all <u>dimensions</u> & with reference to nearby <u>anatomical landmarks</u> in a simulated/supervised environment.                                 | S          | SH                   | Y             |                             |
| SLO        | FM 14.1_4         | The student should be able to <u>deduce the type of the weapon</u> which can cause different injuries in a simulated/supervised environment.  | S          | SH                   | Y             |                             |
| SLO        | FM 14.1_5         | The student should be able to decide the <u>nature of the injuries</u> (Simple/Grievous) with different etiologies in a simulated/supervised environment.   | S          | SH                   | Y             |                             |
|            |                   |   |            |                      |               |                             |
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| 2   | FM 14.2   | Demonstrate the correct technique of clinical examination in a suspected case of poisoning & prepare medico legal report in a simulated/supervised environment.   | S | SH | Y | → Examination of intoxicant – 1 |
|-----|-----------|---|---|----|---|---------------------------------|
| SLO | FM 14.2_1 | The student should be able to take appropriate <u>history</u> , assess the condition of the patient with correct <u>physical examination</u> in a suspected case of poisoning in a simulated/supervised environment.  | S | SH | Y |                                 |
| SLO | FM 14.2_2 | The student should be able to write all the <u>preliminary data</u> of the case of suspected poisoning in a simulated/supervised environment with obtaining history of the case and writing two identification marks. | S | SH | Y |                                 |
| SLO | FM 14.2_3 | The student should be able to <u>deduce the details</u> of the case to prepare a medico legal report of suspected poisoning case in a simulated/supervised environment.   | S | SH | Y | -                               |
| SLO | FM 14.2_4 | The student should be able to decide the <u>nature of the injuries</u> (Simple/Grievous) with different etiologies in a simulated/supervised environment.   | S | SH | Y |                                 |
|     |           |   |   |    |   |                                 |
|     |           |   |   |    |   |                                 |

| 3   | FM 14.3   | Assist and demonstrate the proper technique in collecting, preserving and dispatch of the exhibits in a suspected case of poisoning along with clinical examination. | S | SH   | Y | → Demonstrate preservation of sample, labeling and sealing to the |
|-----|-----------|--|---|------|---|---|
| SLO | FM 14.3_1 | The student should be able to demonstrate proper <u>technique of</u> <u>collecting</u> the exhibits in a suspected case of poisoning.                                | S | SH   |   | students.   |
| SLO | FM 14.3_2 | The student should be able to demonstrate proper technique of preserving & sealing the exhibits in a suspected case of poisoning.                                    | S | SH/P |   | → Label preparation for sample/lavage in poisoning                |
| SLO | FM 14.3_3 | The student should be able to prepare <u>labels of</u> <u>samples</u> /lavage/viscera/exhibits in a suspected case of poisoning.                                     | S | Р    |   | -1  |
| SLO | FM 14.3_4 | The student should be able to prepare FSL forwarding requisition form of the exhibits in a suspected case of poisoning.  | S | Р    |   | → Label preparation for viscera for C/A after autopsy – 1         |
|     |           |  |   |      |   | → FSL forwarding form – 1   |
|     |           |  |   |      |   |   |
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| 4   | FM 14.4   | Conduct and prepare report of estimation of age of a person for medico legal and other purposes & prepare medico-legal report in a simulated/supervised environment.   | S | КН | Y | <ul> <li>→ Age estimation report</li> <li>Male – 2</li> <li>→ Age estimation report</li> </ul> |
|-----|-----------|--|---|----|---|--|
| SLO | FM 14.4_1 | The student should be able to write all the <u>preliminary data</u> of the case of age estimation and should be able to take consent of the subject & writing two identification marks of case of age estimation in a simulated/supervised environment | S | КН | Y | Female – 2   |
| SLO | FM 14.4_2 | The student should be able to carry out general physical examination with examination of secondary sexual characteristics in case of age estimation & deduce the approximate age from it in a simulated/supervised environment.                        | S | КН | Y |  |
| SLO | FM 14.4_3 | The student should be able to carry out <u>dental examination</u> with its charting estimation & deduce the approximate age from it in case of age estimation in a simulated/supervised environment.   | S | КН | Y |  |
| SLO | FM 14.4_4 | The student should be able to <u>decide to order relevant radiological</u> <u>examination, interpret the radiographs &amp; deduce the age</u> from the radiographs in a simulated/supervised environment.  | S | КН | Y |  |
| SLO | FM 14.4_5 | The student should be able to incorporate findings of general physical examination, secondary sexual characteristics, dental parameters and radiological findings to estimate age of an individual in a simulated/supervised environment.              | S | КН | Y |  |
|     |           |  |   |    |   |  |
| 5   | FM 14.5   | Conduct & prepare post-mortem examination report of varied etiologies (at least 15) in a simulated/supervised environment.   | S | КН | Y | → Post mortem report writing – 15  |
| 6   | FM 14.6   | Demonstrate and interpret medico legal aspects from examination of hair (Human & Animal) ,fibre, semen & other biological fluids.  | S | КН | Y | → Slide examination – 5  |

| 7  | FM 14.7  | Demonstrate & identify that a particular stain is blood and identify the species of its origin.  | S | КН | Y | → Slide examination – 1   |
|----|----------|--|---|----|---|---|
| 8  | FM 14.9  | Demonstrate examination of & present an opinion after examination of skeletal remains in a simulated/supervised environment.   | S | SH | Y | → Report of examination of skeletal remains -1                                      |
| 9  | FM 14.30 | Demonstrate ability to identify & prepare medico legal inference from specimens obtained from various types of injuries e.g. contusion, abrasion, laceration, fire arm wounds, burns, head injury, and fracture of bone  | S | КН | Y | → Wet specimens – 5,<br>Photographs – 10,<br>Bones – 2                              |
| 10 | FM 14.31 | To identify & describe weapons of medico legal importance which are commonly used e.g. lathi, knife, kripan, axe, gandasa, gupti, farsha, dagger, bhalla, razor & stick.  Able to prepare report of the weapons brought by police and to give opinion regarding injuries present on the person as described in injury report/ PM report so as to connect weapon with the injuries. (Prepared injury report/PM report must be provided to connect the weapon with the injuries) | S | КН | Υ | → Examination of weapons  - Stick – 1, Knife – 1                                    |
| 11 | FM 14.32 | Describe the contents and structure of bullet and cartridges used & to provide medico legal interpretation from these.   | S | КН | Y | → Examination of weapons  - Cartridges of smooth bored – 1 and rifled firearms  - 1 |
| 12 | FM 14.33 | To estimate the age of foetus by post mortem examination.  | S | KH | Y | → Post mortem report of foetus – 1  |
| 13 | FM 14.34 | To examine & prepare report of an alleged accused in rape/unnatural sexual offence in a simulated/supervised environment.  | S | КН | Y | → Examination of Accused of S.O. report writing – 2                                 |
| 14 | FM 14.35 | To examine & prepare report of a victim of rape/unnatural sexual offence in a simulated/supervised environment.  | S | КН | Y | → Examination of Victim of S.O. report writing – 2                                  |

| 15 | FM 14.36 | To examine & prepare medico legal report of drunk person in a simulated/supervised environment.   | S | KH   | Y | → Examination of drunk person – Form A, B, C – 2   |
|----|----------|---|---|------|---|--|
| 16 | FM 14.37 | To identify & draw medico legal inference from common poisons e.g. dhatura, castor, cannabis, opium, aconite, copper sulphate, pesticide compounds, marking nut, oleander, Nux vomica, abrus seeds, snakes, capsicum, calotropis, lead compounds & tobacco.                 | S | КН   | Y | → Poison specimen – 22   |
| 17 | FM 14.38 | To examine & prepare medico legal report of a person in police, judicial custody or referred by Court of Law and violation of human rights as requirements of NHRC, who has been brought for medical examination.   | S | КН   | Υ | → Report of Medical Examination of arrested/inmate person of jail – 2                                      |
| 18 | FM 14.39 | To identify & prepare medico legal inference from histo-pathological slides of Myocardial infarction, pneumonitis, tuberculosis, brain infarct, liver cirrhosis, brain haemorrhage, bone fracture, pulmonary oedema, brain oedema, soot particles, diatoms & wound healing. | S | КН   | Y | → Slide examination  → Final opinion writing in post mortem examination –                                  |
| 19 | FM 14.30 | To record and certify dying declaration in a simulated/supervised environment.  | S | КН   | Y | → Recording dying declaration – 2  |
| 20 | FM 11.1  | Describe features and management of Snake bite, scorpion sting, bee and wasp sting and spider bite.   | К | к/кн | Y | → Identification of Poisonous & Non-poisonous snakes  → Method of administration of anti-snake venom (ASV) |
| 21 | FM 3.1   | IDENTIFICATION  Define and describe Corpus Delicti, establishment of identity of living   | К | КН   | Y | → Sexual dimorphism in pelvis – label and enumerate  |

|    |         | persons including race, sex, religion, complexion, stature, age determination using morphology, teeth eruption, decay, bite marks, bones – ossification centres, medico legal aspects of age.   |   |    |   | differences – 1  → Eruption of teeth – label and enumerate age of eruption – 1  → X-ray examination with ossification centres – 2 |
|----|---------|---|---|----|---|---|
| 22 | FM 2.21 | Mechanical Asphyxia: Describe and discuss different types of hanging and strangulation including clinical findings, causes of death, post mortem findings and medico legal aspects of death due to hanging and strangulation including examination, preservation and dispatch of ligature material.   | K | KH | Y | → Examination of weapons  - Method of preservation of ligature material – 1   |
| 23 | FM 2.17 | Describe and discuss exhumation.  | K | КН | Υ | → Exhumation report writing – 1   |
| 24 | FM 1.9  | Describe the importance of documentation in medical practice in regard to medico legal examination, medical certificates and medico legal reports especially -maintenance of patient case records, discharge summary, prescribed registers to be maintained in Health centres - documents of issuance of wound certificate - documents of issuance of drunkenness certificate - documents of issuance of sickness and fitness certificate - documents for issuance of death certificate - documents of Medical certificate of Cause of Death – Form 4 & 4A - documents for estimation of age by physical, dental and radiological examination and issuance of certificate | K | КН | Y | Medical Certificate of Cause<br>of Death – MCCD (Form 4) –<br>4   |