



**Datta Meghe Institute of Higher Education & Research - Premier Deemed University in  
Maharashtra  
(Deemed to be University)  
Re- accredited by NAAC (4th cycle with A++ grade)**

**Are you ready to transition from textbooks to hands-on clinical expertise?(Bench –Bed)**

These **15-day intensive electives** are designed to give you a **competitive edge** before internship and residency. Get **real-world exposure, simulation-based training, and hands-on practice** with cutting-edge technology!

Why to choose

- **Internship-Ready Skills** – Master essential procedures before stepping into the hospital.
- **Simulation-Based Training** – Train on **high-fidelity simulators** used in top medical schools.
- **Residency Boost** – Stand out with advanced clinical exposure in emergency, surgery & critical care.
- **Expert Mentorship** – Learn from Skilled faculty & experienced clinicians.
- **Globally Relevant** – Gain skills recognized across medical specialties & career paths.

**What You'll Get**

- ✓ 50% hands-on simulation + 40% clinical exposure +Theory
- ✓ Small group training for personalized mentorship
- ✓ Live case observations in ICU & ED settings
- ✓ Certificate of Completion – Stand Out in Residency Applications!

| Sr No | Name of Elective                          | Highlights<br>(SEL & SC component)   | Simulator   | Department      | Benefits<br>Why choose this course  |
|-------|---|--|---|-----------------|---|
| Sr No | Name of Elective                          | Highlights<br>(SEL & SC component)   | Simulator   | Department      | Benefits<br>Why choose this course  |
| 1     | <b>Mastering Tissue Repair Techniques</b> | <p>1) Master Comprehensive Suturing &amp; Wound Closure Training .</p> <p>2) Learn techniques ranging from basic interrupted sutures to advanced continuous, subcuticular, and mattress sutures.</p> <p>3) Master Multiple Tissue Repair Methods, work with staplers, tissue adhesives, and precision suturing.</p> <p>4) Train with real animal tissue models, in wet lab simulations and high-fidelity silicone models.</p> <p>5) Real-World Clinical Application – Manage trauma wounds, surgical incisions, and emergency lacerations confidently.</p> | Suturing lab wet lab  | SEL&SC          | <p>1) Essential for clinical rotations, trauma care, and surgical specialties</p> <p>2) Enhances precision, dexterity, and emergency preparedness</p> <p>3) Boosts confidence for residency and surgical skills assessment</p> <p><b>**An unmissable elective for MBBS students looking to perfect their surgical skills!</b></p>   |
| 2     | <b>Minimal Invasive Surgery</b>           | <p>1) <b>3D Bronchoscopy Functional Anatomy</b> – Understand airway structures through high-definition 3D video demonstrations.</p> <p>2) <b>Master Hand-Eye Coordination</b> – Develop precision and depth perception essential for laparoscopic and endoscopic procedures.</p> <p>3) <b>Learn Essential Laparoscopic Skills &amp;</b> trained in clip application, grasping, cutting, and</p>  | Anatomage<br>Endotrainer<br>LAP mentor Wet lab<br>Cadaveric lab | General Surgery | <p>1) Practice with top end simulators</p> <p>2) <b>Get a Head Start in Minimally Invasive Surgery</b> – Build essential laparoscopic skills before entering residency.</p> <p>3) Stand Out in Your Internship &amp; Residency Applications – Show proficiency &amp; be confident in modern surgical techniques before clinical rotations.</p> <p><b>** Essential for future Minimal Invasive Surgeons!</b></p> |

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|   |                                    | <p>electrocautery in simulated environment</p> <p>4) <b>Get Hands-on practice</b> in laparoscopic cholecystectomy and appendectomy to refine surgical techniques in Simulated Laparoscopic Procedures</p> <p>5) Perform port placement &amp; endoscopic suturing techniques</p>   |   |  |   |
| 3 | <b>Emergency &amp; Trauma Care</b> | <p><b>Simulated emergency environment (Master Critical Trauma Skills in a Controlled Setup)</b></p> <ul style="list-style-type: none"> <li>◇ Primary &amp; Secondary Survey (ABCDE &amp; AMPLE Approach) – Hands-on assessment of critically injured patients in a simulated emergency room.</li> <li>◇ Basic-Advanced Airway Management – Perform BMV, OPA, NPA, Intubation, and Cricothyrotomy (E-FONA) on airway trainers.</li> <li>◇ Cervical Spine Protection &amp; Patient Handling – Train for safe immobilization and transport techniques.</li> <li>◇ Perform Simulated Central Line Insertion, Intercostal Drain (ICD) placement, and hemorrhage control on task trainers</li> <li>◇ Emergency Ultrasound (E-FAST, E-RUSH) – perform ultrasound-guided diagnostic skills using US Mentor.</li> <li>◇ Perform as member of High-intensity resuscitation scenarios to build rapid response skills in simulated case of Code Blue.</li> </ul> <p><b>Hospital Setting</b></p> <ul style="list-style-type: none"> <li>◇ Assist in real emergency cases, witnessing trauma resuscitation and critical interventions in ED</li> <li>Observe and understand emergency protocols in real-time patient care.</li> <li>◇ Experience working</li> </ul> | <p>Trauma MAN<br/>Task trainers<br/>Blue Phantom<br/>HPS/SIMMAN<br/>US mentor</p> | <p>SEL &amp; SC &amp; Emergency Medicine</p> | <p><b>1) Think Fast, Act Faster</b> – Master life-saving trauma interventions</p> <p>2) Gain hands-on experience in simulated and real emergency settings.</p> <p>3) <b>Cutting-Edge Techniques</b> – Hands-on ultrasound, airway management, and emergency procedures.</p> <p><b>**Ideal for aspiring Emergency Physicians, Anesthesiologists &amp; Intensivists!</b></p> <p><b>***Step into the ER with confidence—because every second counts!</b></p> |

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|   |  | alongside emergency teams in head injury management and neurological assessment cases.   |  |             |   |
| 4 | <b>Essentials of airway management</b> | <p><b>Simulated environment</b></p> <p>1)3D Respiratory Simulation – Visualize airway anatomy and real-time ventilation dynamics with Anatomage.</p> <p>2) Hands-on training in patency maneuvers, BMV, OPA, and NPA using task trainers.</p> <p>3) Perform LMA insertion, endotracheal intubation, and cricothyrotomy (E-FONA)</p> <p>4)<b>Perform as a team member for Critical Scenarios in simulated environment.</b></p> <p>i)Can’t Intubate, Can’t Ventilate (CICV) – Step into a high-risk airway emergency.</p> <p>ii)Trauma Airway – Manage airway in patients with head injury &amp; cervical spine precautions.</p> <p>iii)Anaphylaxis-Induced Airway Edema – Recognize &amp; intervene in severe allergic reactions.</p> <p>iv)Aspiration &amp; Airway Obstruction – Identify and manage choking &amp; aspiration scenarios in simulated setting.</p> <p><b>Real-life hospital exposure</b><br/>(Experience Airway Management in Action)</p> <ul style="list-style-type: none"> <li>◇ Assist in live airway interventions in ED</li> <li>◇ Witness real-time airway rescue during resuscitation.</li> <li>◇ Learn from anesthesiologists managing high-risk cases in the ICU.</li> </ul> | Anatomage<br>Task trainer<br>JUNO<br>HPS | Anaesthesia | <p>1)Master airway assessment &amp; management techniques</p> <p>2) Gain confidence in handling difficult airways</p> <p>3) <b>Bridge Learning &amp; Reality</b> – Observe real-time intubations and emergency interventions in the ED</p> <p>** Essential for emergency physicians, anesthesiologists &amp; intensivists</p> <p>***Turn training into action</p> |

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| 5 | <b>Gynecologic Endoscopic Surgery</b>   | <p><b>Simulated environment</b></p> <p>1)Basic &amp; Advanced Knobology – Understand &amp; perform camera navigation, depth perception &amp; precision movements in LAP mentor</p> <p>2)Essential Procedural Training:</p> <ul style="list-style-type: none"> <li>• Verses needle &amp; trocar insertion – Safe access techniques.</li> <li>• Pneumoperitoneum basics – CO<sub>2</sub> insufflation &amp; troubleshooting.</li> <li>• Diathermy Techniques – Monopolar, bipolar, and vessel sealing.</li> </ul> <p>3)<b>Simulated Procedures:</b></p> <p>Diagnostic Hysteroscopy – Visualizing the uterine cavity for pathology.</p> <p>-Ovarian Cystectomy &amp; Myomectomy – Performing key gynecologic surgeries in simulated environment.</p> <p>4)Pelvic Endoscopic Training – Enhancing dexterity for complex interventions. Perform port placement. Work with Expert Gynecologic Endoscopic Surgeons &amp; Understand real-life decision-making &amp; surgical precision.</p> | Endotrainer<br>IVF-Hystero trainer    | Obstetrics & Gynecology | <p>1)Master essential laparoscopic &amp; hysteroscopic techniques with precision.</p> <p>2) Experience real-time gynecologic procedures in OT &amp; IVF clinics.</p> <p>*** Essential for aspiring OBGYNs &amp; Minimal Invasive Surgeons</p>           |
| 6 | <b>Assisted Reproductive Techniques</b> | <p><b>Simulated environment</b></p> <p>1) 3D Visualization of Fetal Development – Explore embryo implantation &amp; growth using Anatomage Table.</p> <p>2) Ultrasound Mastery with US Mentor – Train in gynecologic &amp; obstetric scanning for ART case assessment.</p>   | Anatomage<br>US mentor<br>IVF trainer | Obstetrics & Gynecology | <p>1) Train in high-fidelity simulation before stepping into real OT &amp; IVF procedures.</p> <p>2) Step into the future of fertility care—gain expertise in cutting-edge ART techniques!</p> <p>**Ideal for aspiring obstetrician &amp; Emergency</p> |

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|   |   | <p>3) IVF Trainer for Assisted Reproduction – Simulate embryo transfer, ovum retrieval &amp; ICSI techniques.</p> <p>4) Diagnostic Laparoscopy</p> <p>5) Hands-on practice in Myomectomy &amp; Adhesiolysis</p> <p>6) Learn suturing &amp; repair techniques for surgical complications.</p> <p>7) Perform diagnostic hysteroscopy for endometrial evaluation.</p> <p><b>Hospital Training</b></p> <p>8) Observe live retrieval &amp; handling of oocytes.</p> <p>9) Demonstration in OT of hysteroscopies, laparoscopic surgeries &amp; embryo transfers.</p> |  |                 | Physicians,   |
| 7 | <b>Robotic Surgery</b>  | <ol style="list-style-type: none"> <li>1) Introduction to Robotic Surgery – Understand principles, instrumentation &amp; mechanics of robotic surgical systems.</li> <li>2) Robotic Console Training – Operate robotic arms, enhance precision, &amp; refine hand-eye coordination.</li> <li>3) Technical Skill Development – Learn setup, troubleshooting &amp; system maintenance for seamless surgical execution.</li> <li>4) Observe Robotic Procedures Across Specialties – From laparoscopy to complex oncologic surgeries.</li> </ol>                   | -                                      | General Surgery | <p>1) experience AI-driven precision surgery.</p> <p>2) Gain exclusive exposure to real OT workflows in cutting-edge robotic surgery.</p> <p><b>**Essential for future surgeons looking to specialize in minimally invasive &amp; robotic techniques!</b></p> |
| 8 | <b>Non Interventional cardiology<br/>Unlock the Power of Cardiac Diagnosis!</b> | <ol style="list-style-type: none"> <li>1) Cardiac Functional Anatomy &amp; Hemodynamics – Explore 3D interactive models of the heart using the Anatomage Table</li> <li>2) Wiggers Diagram &amp;</li> </ol>  | Anatamage<br>SIMMAN/Aries<br>US mentor | Medicine        | <ol style="list-style-type: none"> <li>1) Train with cutting-edge simulators used by top cardiac centres</li> <li>3) Bridge the gap between simulation &amp; real-world practice.</li> </ol>  |

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|   |   | <p>Cardiac Cycle Simulation 3)<br/>Understand the synchronization of ECG, heart sounds, pressure changes, &amp; ventricular mechanics through real-time graphical simulations.</p> <p>4)12-Lead ECG Interpretation &amp; Myocardial Infarction Simulation –in a controlled, high-fidelity environment.</p> <p>5) Live ECG Simulation on SimMan – Experience real-time arrhythmia recognition &amp; MI effects, learning how ischemia, electrolyte imbalances, and conduction disorders alter ECG waveforms.</p> <p>6)Echocardiography Demonstration &amp; Hands-on training in cardiac ultrasound,in simulated environment.</p> <p>7) Working as a team member of high performance team in simulated case scenario of ACS.</p> <p><b>Hospital Setting</b></p> <ol style="list-style-type: none"> <li>1) Shadowing with clinical experts in EMD &amp; ICU.</li> <li>2) Assisting in diagnosis &amp; management of ACS patient in ED/ICU</li> </ol> |                                      |             | <p>*** Take the first step towards becoming a skilled physician in cardiovascular medicine!</p>  |
| 9 | <p><b>Managing Obstetric &amp; Gynecologic Emergencies in high risk pregnancy</b></p> | <ol style="list-style-type: none"> <li>1)BLSO (Basic Life Support in Obstetrics) – Master maternal &amp; neonatal emergency response</li> <li>2) Normal &amp; High-Risk Labor Management – Train in labor progression, fetal distress &amp; interventions</li> <li>3)Learn obstetric ACLS &amp; maternal resuscitation protocols</li> <li>4)Recognize &amp; manage severe hypertension &amp; seizures</li> <li>5)Postpartum Hemorrhage (PPH) Control – Bakri Balloon, Uterine Massage &amp;</li> </ol>  | <p>SIMMOM<br/>ObGy task trainers</p> | <p>ObGy</p> | <ol style="list-style-type: none"> <li>1)Develop rapid decision-making skills in maternal-fetal emergencies</li> <li>2) Bridge the gap between training &amp; real-world obstetric emergencies</li> </ol> <p>** Essential for future OBGY,EMD<br/>***Global AAFP certification of BLSO Basic Life Support in Obstetrics)</p> |

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|    |   | <p>B-Lynch sutures<br/>6)Perimortem C-Section Simulation in maternal collapse<br/>7)Eclamptic Seizure &amp; Airway Management – Hands-on crisis drills for rapid intervention.</p> <p><b>Hospital setting</b><br/>Observe high-risk deliveries &amp; emergency interventions in labor rooms &amp; ICUs</p> <ul style="list-style-type: none"> <li>◊ Assist in maternal resuscitation &amp; rapid-response obstetric procedures</li> </ul>  |  |          |   |
| 10 | <b>Mastering the Code: BLS-ACLS, Advanced Resuscitation &amp; Emergency Leadership"</b> | <p>Phase 1: Core Resuscitation Skills (Days 1-3)AHA BLS/ACLS (Individual Skill Mastery) with AHA <b>Certification</b></p> <p>Phase 2: ACLS Code Simulations &amp; Crisis Leadership (In Days 4-7)</p> <p>Skills Integration:</p> <ul style="list-style-type: none"> <li>◊ Advanced Airway Management (ET Intubation, Supraglottic Airways)</li> <li>◊ IV Access &amp; Medication Administration</li> <li>◊ Dynamic ECG Interpretation (STEMI, Bradyarrhythmia, VF/VT)</li> <li>◊ Team Communication &amp; CRM in Code Blue</li> <li>◊ Work as team member in Simulated Code Cases: <ul style="list-style-type: none"> <li>✓ Pulseless VT/VF → High-Energy Defib &amp; Epi Timing</li> <li>✓ PEA/Asystole → High-Quality CPR &amp; H's &amp; T's Approach</li> </ul> </li> </ul> <p>Phase 3: Emergency Room Simulation Cases</p> <p>Complex Case Scenarios:</p> <ul style="list-style-type: none"> <li>◊ Respiratory Arrest → Intubation</li> <li>◊ Septic Shock → Early Goal-Directed Therapy, Fluid Challenges</li> <li>◊ Bradyarrhythmia with Hypotension → Pacing, Atropine, Dopamine Drip</li> </ul> | SIMMAN<br>HPS<br>Aries<br>Task trainer | SEL & SC | <p>Be the Lifesaver in an ICU!</p> <ol style="list-style-type: none"> <li>1)Hands-on practice in crisis resource management</li> <li>2)Real-life code blue simulation &amp; ICU team-based training</li> </ol> <p>** A must-have for future ER Physicians, Anesthetists &amp; Intensivists!</p> <p>***Global certification of AHA</p> |



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|    |   | <b>Phase 4:</b> Hospital Setting. ED/ICU Clinical Rotations shadowing with expert clinicians.  |                          |          |   |
| 11 | <b>Mastering Vascular &amp; bowel anastomosis</b>   | <p>1)Basic principles types of anastomosis, indications<br/>Instrument Handling &amp; Suture Materials</p> <p>2)Hands-on (Simulation Lab)<br/>Microsurgical instruments<br/>suture types<br/>needle selection</p> <p>3)Basic Knot-Tying Techniques</p> <p>4)Instrument-assisted knot tying<br/>End-to-End Anastomosis 5)<br/>Vessel preparation, alignment, suturing technique</p> <p>6) End-to-Side Anastomosis<br/>Wet Lab (Animal Models)</p> <ul style="list-style-type: none"> <li>✓ Creating side branches, maintaining patency</li> <li>✓ Handling Small &amp; Large Vessels</li> <li>✓ Microsurgical Training Techniques for different vessel diameters</li> </ul> | Wet lab<br>Suturing pads | SEL & SC | <p>Mastering Suturing &amp; Surgical Skills – Operate with Confidence!</p> <p>1) Perform bowel &amp; vascular anastomosis on simulation models &amp; in wet lab.</p> <p>3) Real-world practice in wound closure techniques</p> <p><b>** Perfect for future Surgeons</b></p> |
| 12 | <b>NEXT ready Skills Bootcamp</b><br><br><b>Integrated Clinical skill Training Workshop</b> | <ol style="list-style-type: none"> <li>1) Understand and apply universal precautions and don PPE correctly</li> <li>2) Administer injections with correct site selection and aseptic technique</li> <li>3) Cannulate peripheral veins &amp; draw blood safely</li> </ol>   | Task trainers<br><br>HPS | SEL & SC | <p>Be confident before stepping into wards, ICUs, and ER</p> <p><b>OSCE &amp; NEXT Focused</b> – Train on skills that matter for exams &amp; clinical life</p>  |

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|  |  | <ul style="list-style-type: none"> <li>4) Insert Foley catheter in both genders using sterile technique</li> <li>5) Insert NG tube, confirm placement, administer enema</li> <li>6) Identify landmarks, perform LP with aseptic care</li> <li>7) Demonstrate jugular/subclavian access approach</li> <li>8) Blood Transfusion Setup + Protocols &amp; adverse reaction case scenario</li> <li>9) Defibrillator Use + AED + BLS Recap</li> <li>10) Simulate insertion of intercostal drain &amp; secure tubing</li> <li>11) Thoracostomy (Emergency Needle Decompression)</li> <li>12) Insert IUD, explain steps and gain informed consent  </li> <li>13) Perform timed tasks with checklist scoring</li> </ul> |  |  |  |
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| FAQ                                       | Answer  |
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| <b>Who can enroll in these electives?</b> | These electives are specifically designed for <b>Final Year MBBS students</b> who want to enhance their <b>clinical, procedural, and decision-making skills</b> through high-fidelity simulation and real-world exposure. |

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| <p><b>How long is each elective program?</b></p>                            | <p>Each elective is a <b>15-day structured program</b>, balancing <b>simulation-based training (40%)</b> and <b>real-life clinical exposure (40%)</b> along with <b>theory</b> to provide a comprehensive learning experience.</p>   |
| <p><b>. What is the learning methodology?</b></p>                           | <p>Our approach follows a <b>stepwise progression</b>:</p> <ul style="list-style-type: none"> <li>• <b>Prebrief:</b> Basic theory and case discussions</li> <li>• <b>Simulation Training:</b> Hands-on experience using high-fidelity simulators.wet lab</li> <li>• <b>Clinical Exposure:</b> Observing &amp; assisting in real-world hospital settings</li> <li>• <b>Debrief:</b> Reflection and expert feedback for improvement</li> </ul> |
| <p><b>Will I get hands-on experience in a hospital setting?</b></p>         | <p>Yes! After simulation-based mastery, you will <b>observe and assist</b> under supervision in:</p> <ul style="list-style-type: none"> <li>• Emergency &amp; Trauma Departments</li> <li>• ICUs and OT</li> <li>• Labor &amp; Delivery Suites (for OB-GYN electives)</li> </ul>   |
| <p><b>What certification will I receive?</b></p>                            | <p>Upon successful completion, you will receive a certificate from SEL &amp; SC, DMIHER.If you choose electives with international certification program (AHA,AAFP)component then those AHA &amp; AAFP certification will enhances your clinical portfolio and adds value to residency applications</p>  |
| <p><b>Are these electives accredited?</b></p>                               | <p>Our simulation center is <b>AHA-certified</b> and provides training aligned with <b>international and NMC guidelines</b> to ensure <b>high-quality, evidence-based learning with skilled faculty and clinician</b></p>  |
| <p><b>How will this elective benefit my future career?</b></p>              | <ul style="list-style-type: none"> <li>• Enhances <b>clinical confidence</b> before internship</li> <li>• Develops <b>critical decision-making skills</b> in real-world scenarios</li> <li>• Strengthens <b>residency applications &amp; CV</b> with advanced skill training</li> </ul> <p><b>Bridges the gap between textbook learning and practical application</b></p>  |
| <p><b>. How can I register for an elective?</b></p>                         | <p>Registration is simple:</p> <ul style="list-style-type: none"> <li>• Visit <b>SEL &amp; SC, DMIHER</b> in person or online</li> <li>• Choose your <b>preferred elective</b></li> <li>• Complete the registration form &amp; submit required documents</li> <li>• Pay the elective fee (if applicable)</li> </ul>  |
| <p><b>Are these electives open to students from other universities?</b></p> | <p><b>Yes! We welcome students from medical colleges across India who wish to gain hands-on training at one of the most advanced simulation centers</b></p>  |

Please feel free to Connect us at:

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