



Republic of the Philippines  
**CAVITE STATE UNIVERSITY**  
 Don Severino delas Alas Campus  
 Indang, Cavite

**CAVITE STATE UNIVERSITY – COLLEGE OF MEDICINE**

**SUPPLY AND DELIVERY OF ADVANCED MULTIPURPOSE PATIENT SIMULATOR FOR COLLEGE OF MEDICINE**

**ABC LOT: P8,500,000.00**

| Item No. | Qty./ Unit | Item Description                                     | Specifications   | Unit Price (Php) | Total Price (Php) |
|----------|------------|--|--|------------------|-------------------|
| 1        | 1 set      | Advanced Multipurpose Patient Simulator (Adult-Male) | <p><i>General</i></p> <ul style="list-style-type: none"> <li>• Tether less and wireless; fully responsive during transport</li> <li>• Fully operational on internal battery power – up to 6 hours</li> <li>• Supports common patient positions – Fowler's, supine, and sitting</li> </ul> <p><i>Airway</i></p> <ul style="list-style-type: none"> <li>• Programmable airway: tongue edema, laryngospasm, and pharyngeal swelling</li> <li>• Multiple upper airway sounds synchronized with breathing</li> <li>• Right main stem intubation</li> <li>• Sensors detect depth of intubation</li> <li>• Placement of conventional airway adjuncts</li> <li>• Endotracheal intubation</li> <li>• Retrograde intubation</li> <li>• View vocal cords with Sellick maneuver</li> <li>• Realistic surgical trachea allows tracheostomy or needle cricothyrotomy</li> </ul> <p><i>Breathing</i></p> <ul style="list-style-type: none"> <li>• Control rate and depth of respiration and observe chest rise</li> <li>• Select independent lung sounds: upper right, front and back; upper left, front and back; lower right, front and back; lower left, front and back</li> <li>• Chest rise and lung sounds are synchronized with selectable breathing patterns</li> <li>• CO2 on exhalation (4 levels) using replaceable cartridge</li> </ul> | P8,500,000.00    | P8,500,000.00     |



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|  |  |  | <p>mounted inside the simulator</p> <ul style="list-style-type: none"> <li>● Attach to real mechanical ventilators</li> <li>● Bilateral chest rise and fall</li> <li>● Unilateral chest rise simulates pneumothorax</li> <li>● Anterior and posterior auscultation sites</li> <li>● Bilateral needle decompression at second intercostal</li> <li>● Dynamic airway and lung compliance/resistance           <ul style="list-style-type: none"> <li>○ Ten levels of static compliance, 15-50 ml/cm H<sub>2</sub>O</li> <li>○ Ten levels of airway resistance</li> <li>○ Holds PEEP from 5 to 20cm H<sub>2</sub>O</li> <li>○ Exhales real and measurable CO<sub>2</sub></li> <li>○ Change airway and lung settings on the fly</li> <li>○ Receive real-time feedback from a real mechanical ventilator</li> <li>○ Capable of assisting the ventilator at variable respiratory rate</li> <li>○ Compliance and resistance can be varied while connected to the ventilator</li> </ul> </li> </ul> <p><i>Cardiac</i></p> <ul style="list-style-type: none"> <li>● ECGs are generated in real-time with physiologic variations never repeating textbook patterns</li> <li>● Heart sounds may be auscultated and are synchronized with ECG</li> <li>● eCPR sensors; chest compressions are measured and logged</li> <li>● 12-Lead ECG with integrated MI model</li> </ul> <p><i>Speech</i></p> <ul style="list-style-type: none"> <li>● Wireless streaming audio</li> <li>● Create and store vocal responses in any language</li> </ul> <p><i>Circulation</i></p> |  |  |
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|  |  |  | <ul style="list-style-type: none"> <li>• Measure blood pressure by palpation or auscultation</li> <li>• Use real BP cuff rather than a “virtual” cuff to measure blood pressure</li> <li>• Korotkoff sounds audible between systolic and diastolic pressures</li> <li>• Oxygen saturation detected using real monitors rather than a “virtual” value</li> <li>• Pulse sites synchronized with BP and heart rate</li> <li>• Bilateral IV arms with fill/drain sites</li> <li>• SubQ and IM injection sites</li> <li>• Intraosseous access at tibia</li> <li>• ECG monitoring using real devices</li> <li>• Defibrillate, cardiovert, and pace using real devices</li> <li>• Multiple heart sounds, rates, and intensities</li> <li>• ECG rhythms are generated in real-time</li> <li>• Bilateral carotid, radial, brachial, femoral, popliteal and pedal pulses synchronized with ECG</li> <li>• Pulses vary with blood pressure and are continuous and synchronized with the ECG even during a paced rhythm</li> </ul> <p><i>Drug recognition system</i></p> <ul style="list-style-type: none"> <li>• Automatic drug recognition detects medication type, dose, and rate injected into the lower right arm</li> <li>• Includes a pre-programmed library of virtual medications</li> <li>• Supplied with 20 syringes having wireless tags</li> <li>• Add new medications using the UNI software editor</li> <li>• Compatible with UNI Automatic Mode</li> <li>• Automatically simulates drug interactions</li> </ul> <p><i>Neural responses</i></p> <ul style="list-style-type: none"> <li>• Eyes are controlled</li> </ul> |  |  |
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|  |  |  | <p>automatically by the physiologic model or directly by the instructor</p> <ul style="list-style-type: none"> <li>• Select pupillary response to light Speech</li> </ul> <p><i>Vital signs monitor</i></p> <ul style="list-style-type: none"> <li>• Controlled via wireless tablet PC</li> <li>• Use selected configuration or create your own configuration to mimic the real monitors used in your facility</li> <li>• Share images such as ultrasounds, CT scans, lab results</li> <li>• Touchscreen control</li> <li>• Monitor can be configured by the instructor to suit the scenario</li> </ul> <p><i>Articulation and movement</i></p> <ul style="list-style-type: none"> <li>• Realistic joint articulation</li> <li>• Supports supine, prone, recumbent, and sitting positions</li> <li>• Seizure/convulsions</li> </ul> <p><i>User Interface</i></p> <ul style="list-style-type: none"> <li>• Sensor track student actions</li> <li>• Changes in condition and care provided are time stamped and logged</li> <li>• 26 pre-programmed scenarios that can be modified by the instructor even during the scenario</li> <li>• Create your own scenarios (add/edit)</li> <li>• Change the simulator's condition during scenario</li> </ul> <p><i>Other</i></p> <ul style="list-style-type: none"> <li>• Central cyanosis</li> <li>• Fill bladder and perform Foley catheterization</li> <li>• Male urinary catheterization with fluid return</li> <li>• Support placement of nasogastric tube</li> <li>• Auscultate bowel sounds</li> </ul> <p>PACKAGE INCLUDES:</p> <ul style="list-style-type: none"> <li>• <b>All-in one touch screen monitor PC Specs</b></li> </ul> <p>- 12th Gen Intel® Core™ i5-12500</p> |  |  |
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|  |  |  | <p>(18 - MB cache, 6 cores, 12 threads, 3.00 GHz to 4.60 GHz Turbo, 65 W)<br/>       - Operating System: Windows 11 Pro<br/>       - Graphics Card: Intel® Graphics<br/>       - Monitor: OptiPlex All-in-One Non-Touch Panel<br/>       - Memory: 8 GB, 1 x 8 GB, DDR4<br/>       - Hard Drive: 256 GB, M.2 2230, PCIe NVMe, SSD, Class 35</p> <p>● <b>Surface Pro 7 Plus Specs</b><br/>       - Display Screen: 12.3" PixelSense Display<br/>       - Resolution: 2736 x 1824 (267 PPI)<br/>       - Processor: Intel 11th Gen Core i7-1165G7 quad-core CPU (Wi-Fi)<br/>       Graphics: Intel Iris Xe Graphics (i5, i7)<br/>       - Memory: 32GB LPDDR4x RAM (Wi-Fi)<br/>       - Storage: 1TB removable SSD (Wi-Fi)<br/>       - Battery life: Up to 15 hours with 50.4Wh battery (Wi-Fi)<br/>       Up to 13.5 hours with 50.4Wh battery (LTE)<br/>       - Camera: Windows Hello face camera (front-facing)<br/>       5.0MP front-facing camera with 1080p full HD video<br/>       8.0MP rear-facing autofocus camera with 1080p full HD video<br/>       - Operating system: Windows 10 Pro<br/>       - Software: Microsoft 365 apps trial</p> <p><b>Software Installed:</b></p> <p>The software should be a control software that powers all advanced simulators. Easily adjust vitals on-the-fly, automate scenarios, track participants' actions, export data for debriefing, and much more. The software puts the controls at your fingertips so you can maximize every simulation learning experience.</p> <p>The software is used to control the simulator, monitor the vital signs, and evaluate the provider's performance. The simulation technician or instructor carrying out the simulation operates the software. The control elements and scenario programming procedures should be consistent</p> |  |  |
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|  |  |  | <p>throughout the simulators.</p> <p><b>Preconfigured and Ready</b><br/>The software should come with preloaded and preconfigured in the rugged 12" wireless tablet PC included with the package.</p> <p><b>3D Patient Visualization Monitor</b><br/>The software should show real-time 3D view of the patient ensures you never lose track of provider/patient interaction during the simulation.</p> <p><b>Scenario Designer</b><br/>The software should have the capability to create your own unlimited scenarios quickly and easily and share them with other users and between other simulators.</p> <p><b>Control View Replay</b><br/>The software should have built-in recorder that captures the screen as data so you can review the simulation from the operator's chair.</p> <p><b>No Annual Operating License or Software Update Fees</b><br/>The software updates, upgrades and programming of additional scenarios should be free of charge.</p> <p><b>Time-stamped Event Recording and Reporting</b><br/>The software should have automated event tracker and interaction recorder ensure important events are always captured so you can focus on the action.</p> <ul style="list-style-type: none"><li>● Scenario package</li><li>● Protective "bump" case</li><li>● RF module</li><li>● Battery charger</li><li>● Replacement surgical tracheas</li><li>● Replacement pneumothorax inserts</li><li>● Replacement IO bones</li><li>● set of 20 drug recognition syringes</li></ul> |  |  |
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|  |  |  | <ul style="list-style-type: none"><li>● Filling kits</li><li>● Headset for streaming audio</li><li>● Carrying case</li><li>● User manual</li><li>● Laboratory Staff and Faculty Members Training</li><li>● Maintenance and after sales care for 5 years</li></ul> <p><b>General Conditions/ Certifications for Multipurpose Patient Simulator to be submitted upon Bid Opening:</b></p> <ol style="list-style-type: none"><li>1. Certification that the software provided includes Full Administrator Rights.</li><li>2. Certificate of Lifetime Use License and Access, including for the software and for Automatic Mode license.</li><li>3. Certificate that consumables and Parts are available with the Philippine distributor and can be delivered in less than seven (7) days.</li><li>4. Certificate that the winning bidder will provide warranty for a period of 5 years and can provide after sales care for a period of 5 years after the warranty period.</li><li>5. Certificate that the bidder has available local technical support and will provide end user training for staff and faculty members.</li><li>6. Certificate that the winning bidder will provide onsite calibration and installation.</li><li>7. Certificate that the winning bidder will provide installation, testing and commissioning.</li></ol> |  |  |
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