COMPUTER-ASSISTED PATIENT/NURSING CARE SIMULATOR

Equipment Details		Person Responsible for the Equipment	
Brand/Model	SİM-MOD	**Full Name**	Lecturer Merve KIRŞAN BÜYÜKTARAKÇI
Inventory Registration No	253.3.4/23/1304903	**Telephone**	0 (378) 223 53 74
Equipment Status/Quantity	Aktive/ 1 unit	**Email**	mkirsan@bartin.edu.tr
Laboratory Location	Faculty of Health Sciences / Simulation Laboratory		

Images of the Equipment




SİM-MOD
BHM


ECG II
HR
100
50
88
SpO2
SPO2
100
90
99
RR
30
15
0
awRR
30
8
15
CVP
100
0
6mm
Hg
Glucose
120
80
100mg/
dl
CO2
50
25
0
etCO2
65
25
35
Temp°C
38,8
35,5
36,5
NIMBP
160
120/ 80
SIM+MOD


londa







Technical Specifications

- ✓ The simulator is a full-body adult male/female patient manikin developed for the practical training of personnel who provide first aid, nursing care, and emergency healthcare services under various conditions and in different environments.
- ✓ The simulator can be controlled from one physiological state to another using a laptop, tablet, or another wireless control system in the room where it is installed. Simulation activities can be conducted using real patient monitoring systems and clinical equipment.
- ✓ The instructor can intervene during the student's performance, provide guidance, and add comments to their notes, thereby creating a real-time training record.
- ✓ The simulator includes at least six pre-programmed scenarios involving nursing interventions for conditions such as acute myocardial infarction, acute respiratory distress syndrome, asthma attack, exacerbation of chronic obstructive pulmonary disease, fluid and electrolyte imbalance, hypoglycemia, pulmonary edema, sepsis, respiratory and cardiac arrest, and hypovolemic shock. The instructor can modify these scenarios as needed or create original scenarios for nursing practice.
- ✓ Using the software's feature that automatically synchronizes cardiovascular parameters, values such as the patient's heart rhythm and blood pressure can be modified directly. Based on the resulting values, the scenario can progress to the next critical decision point.
- ✓ The instructor or student can use their own voice to speak through the manikin. The instructor can listen to the student's responses, enabling two-way voice communication. This feature is available in Turkish.
- ✓ The simulator features a wireless touchscreen patient-monitoring system that can display pre-programmed vital signs or newly generated signals in the same manner as a bedside patient monitor.
- ✓ The manikin's monitor can be configured according to each scenario and can display parameters including ECG, $EtCO_2$, heart rate, SpO_2, blood pressure, respiratory rate, temperature, CO_2, and central venous pressure. ECG rhythms can also be selected and displayed.
- ✓ The simulator uses Bluetooth technology for data transmission.
- ✓ It is equipped with audible and visual alarm functions.
- ✓ The simulator has the following features:
    - ✓ The simulator has full-body male/female patient anatomy and includes interchangeable male/female skin and genitalia kits, allowing conversion between male and female appearances as required.
    - ✓ It is equipped with user-friendly licensed software.
    - ✓ It supports standard patient positions and can remain in a seated position without assistance.
    - ✓ It has realistic joints.
    - ✓ The manikin can be positioned in various clinically appropriate positions.
    - ✓ It is suitable for practising hair care, oral care, wound dressing, and bandaging.
    - ✓ Medication can be administered into the ears and nose.
    - ✓ Wireless communication enables verbal interaction with the patient.
    - ✓ It has active eyes with eyelids that open and close automatically. The pupils can be manually adjusted according to the clinical scenario using three different modes: normal, miotic (constricted), and mydriatic (dilated).
    - ✓ Intubation and suctioning procedures can be performed.
    - ✓ It has a realistic airway with a lifelike tongue and visible vocal cords.
    - ✓ It produces airway sounds, including breath sounds, as well as prerecorded sounds such as coughing, groaning, vomiting, continuous breathing, "yes," and "no."
    - ✓ Oral and nasal endotracheal intubation can be performed.
    - ✓ Suctioning procedures can be performed.
    - ✓ Tracheostomy care can be practised.
    - ✓ It can simulate spontaneous breathing using selectable breathing patterns.
    - ✓ The respiratory rate can be programmed.
    - ✓ Unilateral or bilateral chest rise and fall can be observed during intubation.

- ✓ Selectable normal and abnormal lung sounds are available and can be auscultated using a real stethoscope.
- ✓ Normal and abnormal bowel sounds can be auscultated.
- ✓ Real-time CPR can be performed, or an additional manikin is available to support real-time CPR practice.
- ✓ The heart rate can be programmed.
- ✓ ECG-synchronized heart sounds can be auscultated.
- ✓ Normal and abnormal heart sounds can be auscultated.
- ✓ The simulator includes a comprehensive range of ECG rhythms.
- ✓ Defibrillation, cardioversion, and similar procedures can be performed using a real defibrillator.
- ✓ Palpable pulses are available at bilateral carotid, brachial, radial, pedal, and femoral sites.
- ✓ Non-invasive blood pressure can be measured through auscultation or palpation.
- ✓ Audible Korotkoff sounds are available.
- ✓ Bilateral intravenous access sites are available in the arms.
- ✓ Bilateral intramuscular injection sites are available.
- ✓ It has an interchangeable breast module.
- ✓ It supports breast examination practice.
- ✓ Nasogastric and orogastric tube insertion, gastric lavage, and gavage procedures can be performed.
- ✓ It has a realistic stoma site for ostomy and colostomy care practice.
- ✓ Replacement and emptying of an ostomy appliance can be simulated.
- ✓ Enema administration can be performed.
- ✓ Urinary catheterization can be performed.
- ✓ The simulator includes anatomically realistic female genitalia featuring the labia majora, labia minora, urethral opening, clitoris, and vagina.
- ✓ It also includes interchangeable male genitalia, allowing conversion between female and male anatomy when required.
- ✓ The vaginal canal and anal opening allow the administration of vaginal suppositories and medications.
- ✓ The manikin is supplied with a wound care kit representing four different pressure ulcers.
- ✓ The system includes a camera recording and control system.
- ✓ One high-resolution IP speed dome camera
- ✓ Two HDMI/VGA monitors measuring at least 20 inches
- ✓ Two laptop computers equipped with at least an Intel Core i5 processor
- ✓ Two wireless keyboard and mouse sets
- ✓ Two 3-metre HDMI cables
- ✓ Two 12 V, 2.0 A AC adapters
- ✓ One four-channel recording and control unit with a 1 TB HDD
- ✓ One voice-controlled microphone, one amplifier, one headset, and one standard loudspeaker
- ✓ The number of microphones and loudspeakers can be increased as required.
- ✓ The system includes a Full HD projector for use during debriefing sessions.
- ✓ Full HD Projector Specifications
- ✓ Native resolution: At least 1920 × 1080
- ✓ Maximum supported resolution: 2K/4K UHD through HD signal support
- ✓ Brightness: At least 7,800 lumens
- ✓ Colour gamut: 80%
- ✓ 3D function: Red–blue 3D support
- ✓ Contrast ratio: 15,000:1
- ✓ Aspect ratio: 4:3, 16:9, or automatic

- ✓ Dust filter
- ✓ Bluetooth support: Wireless connection to headphones, loudspeakers, and soundbars
- ✓ Wi-Fi: 2.4 GHz/5 GHz wireless technology and wireless screen mirroring with Android and iOS devices
- ✓ Wired multi-screen mirroring and synchronization with iOS devices
- ✓ Zoom range: 50%–100%
- ✓ 6D keystone correction supporting four-point corner adjustment for side projection of ±50° and vertical correction of ±15°
- ✓ Direct viewing of Microsoft Office and PDF files, including Excel, Word, PDF, and PowerPoint files, from a USB flash drive