



Republic of the Philippines
Cebu Normal University
 Osmeña Blvd. Cebu City, 6000 Philippines



Office of the Bids and Awards Committee

Telephone No.: (+63 32) 254 1452 local 141 or 125

Email: cnubacsed@gmail.com

Website: www.cnu.edu.ph

- PROCUREMENT** : Procurement of 1 Lot 3D Printed Anatomy Models; 1 Lot 3D Anatomy Software; 1 Lot Virtual Reality Clinic Laboratory and Virtual Reality Augmented Reality for Maternal-Fetal Birthing Simulator; 1 Lot CPR Trainer; 1 Lot Physiology Teaching System; and 1 Lot Chest Drain & Needle Decompression Trainer
- BID NO** : **24-10-310**
- LOCATION** : Cebu Normal University
Osmeña Boulevard, Cebu City
- OWNER** : Cebu Normal University
- SUBJECT** : **Bid Bulletin No. 1**
- DATE** : October 22, 2024

This Bid Bulletin is to amend/clarify the following requirements as reflected in the Invitation to Bid/Bidding Documents.

ITEM DESCRIPTION	
FROM	TO
<p>Title: Procurement of 1 Lot 3D Printed Anatomy Models and 3D Anatomy Software; 1 Lot Virtual Reality Clinic Laboratory and Virtual Reality Augmented Reality for Maternal-Fetal Birthing Simulator; 1 Lot CPR Trainer; 1 Lot Physiology Teaching System; and 1 Lot Chest Drain & Needle Decompression Trainer with Bid No. 24-10-310</p> <p>Invitation to Bid for the Procurement of 1 Lot 3D Printed Anatomy Models and 3D Anatomy Software; 1 Lot Virtual Reality Clinic Laboratory and Virtual Reality Augmented Reality for Maternal-Fetal Birthing Simulator; 1 Lot CPR Trainer; 1 Lot Physiology Teaching System; and 1 Lot Chest Drain & Needle Decompression Trainer with Bid No. 24-10-310</p>	<p>Title: Procurement of 1 Lot 3D Printed Anatomy Models; 1 Lot 3D Anatomy Software; 1 Lot Virtual Reality Clinic Laboratory and Virtual Reality Augmented Reality for Maternal-Fetal Birthing Simulator; 1 Lot CPR Trainer; 1 Lot Physiology Teaching System; and 1 Lot Chest Drain & Needle Decompression Trainer with Bid No. 24-10-310</p> <p>Invitation to Bid for the Procurement of 1 Lot 3D Printed Anatomy Models; 1 Lot 3D Anatomy Software; 1 Lot Virtual Reality Clinic Laboratory and Virtual Reality Augmented Reality for Maternal-Fetal Birthing Simulator; 1 Lot CPR Trainer; 1 Lot Physiology Teaching System; and 1 Lot Chest Drain & Needle Decompression Trainer with Bid No. 24-10-310</p>



Certification Date: 24 January 2024
 Recertification due date: 24 January 2027
 For verification of the certificate please access www.gclint.com (Certification check and type the registration number)



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ITB Item No. 1:

1. The *Cebu Normal University*, through the CHED SUC SEED FUND (MTF-LBP), intends to apply the sum of *Thirty-Five Million Pesos (Php35,000,000.00)* being the ABC to payments under the contract for the *Procurement of 1 Lot 3D Printed Anatomy Models and 3D Anatomy Software; 1 Lot Virtual Reality Clinic Laboratory and Virtual Reality Augmented Reality for Maternal-Fetal Birthing Simulator; 1 Lot CPR Trainer; 1 Lot Physiology Teaching System; and 1 Lot Chest Drain & Needle Decompression Trainer with Bid No. 24-10-310.* Bids received in excess of the ABC shall be automatically rejected at bid opening.

1. Scope of Bid

The Procuring Entity, *Cebu Normal University* wishes to receive Bids for the *1 Lot 3D Printed Anatomy Models and 3D Anatomy Software; 1 Lot Virtual Reality Clinic Laboratory and Virtual Reality Augmented Reality for Maternal-Fetal Birthing Simulator; 1 Lot CPR Trainer; 1 Lot Physiology Teaching System; and 1 Lot Chest Drain & Needle Decompression Trainer, with identification number 24-10-310.*

The Procurement Project (referred to herein as “Project”) is composed of ~~FIVE (5)~~ **LOTS**, the details of which are described in Section VII (Technical Specifications).

Bid Data Sheet - ITB Clause 19.3

Procurement of 1 Lot 3D Printed Anatomy Models and 3D Anatomy Software, 1 lot Virtual Reality Clinic Laboratory and Virtual Reality

ITB Item No. 1:

The *Cebu Normal University*, through the CHED SUC SEED FUND (MTF-LBP), intends to apply the sum of *Thirty-Five Million Pesos (Php35,000,000.00)* being the ABC to payments under the contract for the *Procurement of 1 Lot 3D Printed Anatomy Models; 1 Lot 3D Anatomy Software; 1 Lot Virtual Reality Clinic Laboratory and Virtual Reality Augmented Reality for Maternal-Fetal Birthing Simulator; 1 Lot CPR Trainer; 1 Lot Physiology Teaching System; and 1 Lot Chest Drain & Needle Decompression Trainer with Bid No. 24-10-310.* Bids received in excess of the ABC shall be automatically rejected at bid opening.

1. Scope of Bid

The Procuring Entity, *Cebu Normal University* wishes to receive Bids for the *1 Lot 3D Printed Anatomy Models; 1 Lot Anatomy Software; 1 Lot Virtual Reality Clinic Laboratory and Virtual Reality Augmented Reality for Maternal-Fetal Birthing Simulator; 1 Lot CPR Trainer; 1 Lot Physiology Teaching System; and 1 Lot Chest Drain & Needle Decompression Trainer, with identification number 24-10-310.*

The Procurement Project (referred to herein as “Project”) is composed of **SIX (6) LOTS**, the details of which are described in Section VII (Technical Specifications).

Bid Data Sheet - ITB Clause 19.3

Procurement of 1 Lot 3D Printed Anatomy Models; 1 Lot 3D Anatomy Software, 1 lot Virtual Reality Clinic Laboratory and Virtual Reality Augmented Reality for Maternal-Fetal



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Augmented Reality for Maternal-Fetal Birthing Simulator, 1 lot CPR Trainer; 1 lot Physiology Teaching System, and 1 lot Chest Drain & Needle Decompression Trainer amounting to Thirty-Five Million Pesos (Php35,000,000.00)

Birthing Simulator, 1 lot CPR Trainer; 1 lot Physiology Teaching System, and 1 lot Chest Drain & Needle Decompression Trainer amounting to Thirty-Five Million Pesos (Php35,000,000.00)

ITEM NO.	Qty.	Unit	Item Description
1	1	L O T	1 Lot 3D PRINTED ANATOMY MODELS AND 3D ANATOMY SOFTWARE
1.1	1	Unit	1 Lot 3D PRINTED ANATOMY MODELS Deep upper limb and hand This 3D print of a superficially dissected right upper limb specimen displays a mixture of the vascular, nervous, and muscular anatomy of the distal arm, forearm, and hand.
1.2	1	Unit	Foot - Plantar surface & superficial dissection on the dorsum This 3D printed specimen is a left foot with superficial structures exposed on the dorsum, and the superficial layer of muscles and nerves on the plantar surface. The anterior portion of the plantar aponeurosis has largely been removed to expose the first layer of muscles
1.3	1	Unit	Lower Limb - deep dissection This 3D printed specimen consists of a right partial lower limb sectioned just proximal to the knee joint and complete through a partially dissected foot exposing the structures on the dorsum.

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1.4	1	U nit	Popliteal Fossa distal thigh and proximal leg This 3D printed specimen preserves the distal thigh and proximal leg, dissected posteriorly to demonstrate the contents of the popliteal fossa and surrounding region.		1.4	1	U nit	Popliteal Fossa distal thigh and proximal leg This 3D printed specimen preserves the distal thigh and proximal leg, dissected posteriorly to demonstrate the contents of the popliteal fossa and surrounding region.	
1.5	1	U nit	Knee Joint, flexed This 3D printed specimen demonstrates the ligaments of the knee joint with the leg in flexion. In the anterior view, with the patella and part of the patellar ligament removed, the medial and lateral menisci and anterior and posterior cruciate ligaments are visible.		1.5	1	U nit	Knee Joint, flexed This 3D printed specimen demonstrates the ligaments of the knee joint with the leg in flexion. In the anterior view, with the patella and part of the patellar ligament removed, the medial and lateral menisci and anterior and posterior cruciate ligaments are visible.	
1.6	1	U nit	Female right pelvis superficial and deep structures This 3D printed female right pelvis preserves both superficial and deep structures of the true and false pelvis, as well as the inguinal ligament, the obturator membrane and canal, and both the greater and lesser sciatic foramina. Somewhat unique is the removal of portions of the peritoneum (a grayish color) to create 'windows' displaying extraperitoneal structures		1.6	1	U nit	Female right pelvis superficial and deep structures This 3D printed female right pelvis preserves both superficial and deep structures of the true and false pelvis, as well as the inguinal ligament, the obturator membrane and canal, and both the greater and lesser sciatic foramina. Somewhat unique is the removal of portions of the peritoneum (a grayish color) to create 'windows' displaying extraperitoneal structures	





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1.7	1	Unit	<p>Heart internal structures</p> <p>This 3D printed heart has been dissected to display the internal structures of the chambers. At the base of the heart the termination of the superior vena cava is preserved entering the right atrium. Part of the inferior vena cava is also preserved on the inferior aspect of the right atrium; however, most of the vessel lumen and much of the anterior wall has been removed to expose the pectinate muscles of the right auricle and the fossa ovalis (which is nearly translucent in the 3D print). The anterior wall of the right ventricle has also been removed to expose the right atrioventricular valve and its three cusps (anterior, posterior, and septal), including the chordae tendineae connecting them to respective papillary muscles projecting from trabeculae carneae (including a septomarginal trabecula entering the anterior papillary muscle from the interventricular septum).</p>		1.7	1	Unit	<p>Heart internal structures</p> <p>This 3D printed heart has been dissected to display the internal structures of the chambers. At the base of the heart the termination of the superior vena cava is preserved entering the right atrium. Part of the inferior vena cava is also preserved on the inferior aspect of the right atrium; however, most of the vessel lumen and much of the anterior wall has been removed to expose the pectinate muscles of the right auricle and the fossa ovalis (which is nearly translucent in the 3D print). The anterior wall of the right ventricle has also been removed to expose the right atrioventricular valve and its three cusps (anterior, posterior, and septal), including the chordae tendineae connecting them to respective papillary muscles projecting from trabeculae carneae (including a septomarginal trabecula entering the anterior papillary muscle from the interventricular septum).</p>	
1.8	1	Unit	<p>Circle of Willis</p> <p>This 3D printed specimen demonstrates the intracranial arteries that supply the brain relative to the inferior portions of the 1 Unit P 288,000.00 5 Page viscero- and neurocranium. This print was created by careful segmentation of angiographic data. The model shows the paired vertebral arteries entering the cranial cavity through the foramen magnum and</p>		1.8	1	Unit	<p>Circle of Willis</p> <p>This 3D printed specimen demonstrates the intracranial arteries that supply the brain relative to the inferior portions of the 1 Unit P 288,000.00 5 Page viscero- and neurocranium. This print was created by careful segmentation of angiographic data. The model shows the paired vertebral arteries entering the cranial cavity through the foramen magnum and</p>	





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			uniting to form the basilar artery. The basilar can be seen dividing into their terminal posterior cerebral arteries. The superior cerebellar arteries arise just proximal to this termination.				uniting to form the basilar artery. The basilar can be seen dividing into their terminal posterior cerebral arteries. The superior cerebellar arteries arise just proximal to this termination.
1.9	1	Unit	Median Section through head sagittal section of head with deep dissection This 3D model combines a midsagittal section of the head with preservation of brain and cranial cavity anatomy, with a unique deep dissection of the pharyngeal region via removal of basicranial bone and the anterior parts of the atlas and axis. As the opposing side is undissected it has been digitally eliminated from the model.	1.9	1	Unit	Median Section through head sagittal section of head with deep dissection This 3D model combines a midsagittal section of the head with preservation of brain and cranial cavity anatomy, with a unique deep dissection of the pharyngeal region via removal of basicranial bone and the anterior parts of the atlas and axis. As the opposing side is undissected it has been digitally eliminated from the model.
1.10	1	Unit	Thorax with heart and vessels The superior thoracic aperture contains structures emerging from the thorax and entering the head and neck and upper limb. In this specimen, both clavicles, key venous structures and other musculature have been removed. Despite this, other important components of anatomy can be observed. Key structures include the Trachea seen most superiorly with a thick ring of cartilage, rib one has been exposed prior to meeting its costal cartilage, travelling in a lateral to medial direction and the anterior scalene muscle inserting into Rib one superiorly.	1.10	1	Unit	Thorax with heart and vessels The superior thoracic aperture contains structures emerging from the thorax and entering the head and neck and upper limb. In this specimen, both clavicles, key venous structures and other musculature have been removed. Despite this, other important components of anatomy can be observed. Key structures include the Trachea seen most superiorly with a thick ring of cartilage, rib one has been exposed prior to meeting its costal cartilage, travelling in a lateral to medial direction and the anterior scalene muscle inserting into Rib one superiorly.
1.11	1	Unit	Human Heart	1.11	1	Unit	Human Heart





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1.12	1	Unit	Hilum of the left lung		1.12	1	Unit	Hilum of the left lung
1.13	1	Unit	Hilum of the right lung The hilum of a lung is the point at which visceral and parietal pleura meet and functions with the pulmonary ligament as the lungs only connection with the rest of the body. This connection includes the Pulmonary Artery, Superior and Inferior Pulmonary Veins, Main Bronchi, Nerves and Lymphatics.		1.13	1	Unit	Hilum of the right lung The hilum of a lung is the point at which visceral and parietal pleura meet and functions with the pulmonary ligament as the lungs only connection with the rest of the body. This connection includes the Pulmonary Artery, Superior and Inferior Pulmonary Veins, Main Bronchi, Nerves and Lymphatics.
1.14	1	Unit	Abdomen with bilateral Hernias This 3D model represents one of the largest and most complex in the series, consisting of a partial torso from the diaphragm to the proximal thigh with a complete abdominal cavity preserving varying levels of dissection. This 3D model also records the rare, simultaneous occurrence of indirect and direct inguinal hernias allowing for consideration of the anatomical underpinnings for both conditions. Given the scale of the dissection this 3D model description is divided into discrete parts based on views and regions.		1.14	1	Unit	Abdomen with bilateral Hernias This 3D model represents one of the largest and most complex in the series, consisting of a partial torso from the diaphragm to the proximal thigh with a complete abdominal cavity preserving varying levels of dissection. This 3D model also records the rare, simultaneous occurrence of indirect and direct inguinal hernias allowing for consideration of the anatomical underpinnings for both conditions. Given the scale of the dissection this 3D model description is divided into discrete parts based on views and regions.
1.15	1	Unit	Vasculature of the spleen At the splenic hilum, the splenic artery and vein can be seen entering the spleen to supply and drain the organ. The opening of the splenic vein has been kept patent by the insertion of silicon tubing in the model. This model shows the most superior branch of the splenic vein has been sectioned from its normal passage into		1.15	1	Unit	Vasculature of the spleen At the splenic hilum, the splenic artery and vein can be seen entering the spleen to supply and drain the organ. The opening of the splenic vein has been kept patent by the insertion of silicon tubing in the model. This model shows the most superior branch of the splenic vein has been sectioned from its normal passage into





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			the spleen. The “tortuous” of twisted shape of the splenic artery can be appreciated as it branches at the hilum. This reflects the overall curled and twisted shape of the vessel across its course from the coeliac trunk to the spleen.				the spleen. The “tortuous” of twisted shape of the splenic artery can be appreciated as it branches at the hilum. This reflects the overall curled and twisted shape of the vessel across its course from the coeliac trunk to the spleen.
1.1 6	1	U nit	Stomach This 3D model is an isolated stomach with two dissection windows to expose the rugae and pylorus. A small portion of the terminal esophagus is preserved at the cardiac region, and a small portion of the proximal duodenum beyond the pyloric sphincter. The large window within the body of the stomach allows for a clear view into the fundus and the well-developed rugae on the posterior aspect of the wall of the organ. The smaller window, opened just at the pyloric region, allows for an appreciation of the thickening of the organ wall at the pyloric sphincter just proximal to the start of the duodenum.	1.1 6	1	U nit	Stomach This 3D model is an isolated stomach with two dissection windows to expose the rugae and pylorus. A small portion of the terminal esophagus is preserved at the cardiac region, and a small portion of the proximal duodenum beyond the pyloric sphincter. The large window within the body of the stomach allows for a clear view into the fundus and the well-developed rugae on the posterior aspect of the wall of the organ. The smaller window, opened just at the pyloric region, allows for an appreciation of the thickening of the organ wall at the pyloric sphincter just proximal to the start of the duodenum.
1.1 7	1	U nit	Spleen and pancreas This 3D model preserve the deep foregut organs: the descending, horizontal and ascending duodenum, the pancreas, and the spleen.	1.1 7	1	U nit	Spleen and pancreas This 3D model preserve the deep foregut organs: the descending, horizontal and ascending duodenum, the pancreas, and the spleen.





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1.1 8	1	U nit	<p>Liver with vessels and gallbladder</p> <p>The size and shape of this specimen varies somewhat from a typical liver. It is less wedge-shaped and longer in the super inferior dimension (on the posterior view this would translate to a greater vertical height). Normally, a liver is less than 16cm in the midclavicular line.1 This specimen measures approximately 18cm in the midclavicular line, suggesting some degree of hepatomegaly. However, it is worth mentioning that some measurement distortion may have occurred based on the fixing and curation of the specimen – and it must be noted that the accuracy of estimating liver size using a single parameter is limited. Liver measurements diagnostic of hepatomegaly vary depending on normal anatomical variation in liver size and morphology, the method of measurement, and patient features such as sex and BMI.</p>		1.1 8	1	U nit	<p>Liver with vessels and gallbladder</p> <p>The size and shape of this specimen varies somewhat from a typical liver. It is less wedge-shaped and longer in the super inferior dimension (on the posterior view this would translate to a greater vertical height). Normally, a liver is less than 16cm in the midclavicular line.1 This specimen measures approximately 18cm in the midclavicular line, suggesting some degree of hepatomegaly. However, it is worth mentioning that some measurement distortion may have occurred based on the fixing and curation of the specimen – and it must be noted that the accuracy of estimating liver size using a single parameter is limited. Liver measurements diagnostic of hepatomegaly vary depending on normal anatomical variation in liver size and morphology, the method of measurement, and patient features such as sex and BMI.</p>	
1.1 9	1	U nit	<p>Female hemipelvis and thigh</p> <p>This 3D model preserves a left pelvis divided at the midsagittal plane, and the proximal thigh to approximately the midthigh.</p>		1.1 9	1	U nit	<p>Female hemipelvis and thigh</p> <p>This 3D model preserves a left pelvis divided at the midsagittal plane, and the proximal thigh to approximately the midthigh.</p>	





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			<p>*Warranty: One (1) year on parts and services</p> <ul style="list-style-type: none"> ■ Certificate of authorized distributorship of the bidder issued by the manufacturer. ■ Certificate from the manufacturer that the 3D Printed Products are an accurate representation of real human anatomy and are based on imaging scanning data of real human specimen provided by one of the top 20 university worlds ranking in anatomy, ranked by QS World University Ranking for Anatomy and Physiology via its website. ■ Certificate from the manufacturer that the 3D printed anatomy models are made of photopolymer resin. ■ Certificate of manufacturer's ISO certificate ■ There must be at least one demo unit from the list of 3D printed anatomy models as sample. 				<p>*Warranty: One (1) year on parts and services</p> <ul style="list-style-type: none"> ■ Certificate of authorized distributorship of the bidder issued by the manufacturer. ■ Certificate from the manufacturer that the 3D Printed Products are an accurate representation of real human anatomy and are based on imaging scanning data of real human specimen provided by one of the top 20 university worlds ranking in anatomy, ranked by QS World University Ranking for Anatomy and Physiology via its website. ■ Certificate from the manufacturer that the 3D printed anatomy models are made of photopolymer resin. ■ Certificate of manufacturer's ISO certificate ■ There must be at least one demo unit from the list of 3D printed anatomy models as sample. <p>LOT 1 TOTAL ABC: Php6,805,200.00</p>
1.20	2	Set	3D ANATOMY SOFTWARE				1 LOT 3D ANATOMY SOFTWARE
	2	2	Set				3D ANATOMY SOFTWARE





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		<p>3D Anatomy Software, including at least 14" i5 touchscreen laptop and at least 65" ViewSonic interactive digital whiteboard</p> <p>The 3D Anatomy Software is a collection of at least 300 advanced digital images of real Plastinated specimens of each human body region dissected in various quantities. High-precision reconstruction technology was employed in its development. It serves as a valuable and engaging teaching tool for human anatomy education, facilitating effective class lectures and discussions, serving as a learning resource, and supporting pop quizzes and pre-exam preparation.</p> <p>The 3D Anatomy Software can be used for anatomy lectures in the class, and can be used as a dissection guide for a big group of students in the anatomy laboratory.</p> <p>The 3D Anatomy Software is an offline based software allowing it to be used anytime.</p> <p>During classroom lectures, the instructor controls the software from the laptop/from the Interactive Digital Board, while students listen and learn as the image is shared in a large or multiple TV screen/s or projector for larger image.</p> <p>Note: The 3D Anatomy Software should have no yearly subscriptions, and must include free lifetime software updates.</p> <p>LOT 1 TOTAL ABC: Php11,305,200.00</p>			<p>3D Anatomy Software, including at least 14" i5 touchscreen laptop and at least 65" ViewSonic interactive digital whiteboard</p> <p>The 3D Anatomy Software is a collection of at least 300 advanced digital images of real Plastinated specimens of each human body region dissected in various quantities. High-precision reconstruction technology was employed in its development. It serves as a valuable and engaging teaching tool for human anatomy education, facilitating effective class lectures and discussions, serving as a learning resource, and supporting pop quizzes and pre-exam preparation.</p> <p>The 3D Anatomy Software can be used for anatomy lectures in the class, and can be used as a dissection guide for a big group of students in the anatomy laboratory.</p> <p>The 3D Anatomy Software is an offline based software allowing it to be used anytime.</p> <p>During classroom lectures, the instructor controls the software from the laptop/from the Interactive Digital Board, while students listen and learn as the image is shared in a large or multiple TV screen/s or projector for larger image.</p> <p>Note: The 3D Anatomy Software should have no yearly subscriptions, and must include free lifetime software updates.</p> <p>LOT 2 TOTAL ABC: Php4,500,000.00</p>	
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2.0	1	L O T	VIRTUAL REALITY CLINIC LABORATORY AND VIRTUAL REALITY AUGMENTED REALITY FOR MATERNAL-FETAL BIRTHING SIMULATOR		3.0	1	L O T	VIRTUAL REALITY CLINIC LABORATORY AND VIRTUAL REALITY AUGMENTED REALITY FOR MATERNAL-FETAL BIRTHING SIMULATOR
2.1	2	U nit	Virtual Reality Clinic Laboratory This is an advanced, affordable, and revolutionary virtual reality medical training solution. Learn and develop medical diagnostic skills with high resolution graphics that are engaging and truly immersive. Virtual patients differ in age and gender and answer different medical questions which gives the user the chance to analyze and make conclusions about possible diagnosis. Learners can develop critical skills to effectively diagnose illnesses using a wide variety of medical instruments, medicines, and laboratory tests in a safe, controlled environment with session monitoring in real time. • Industry-leading graphics • Minimum space needed for use is 4 sq. ft. • Unique teleportation feature inside VR section • Fastest setup, load and response time • Smart Center with Spectator feature for managing and tracking training		3.1	2	U nit	Virtual Reality Clinic Laboratory This is an advanced, affordable, and revolutionary virtual reality medical training solution. Learn and develop medical diagnostic skills with high resolution graphics that are engaging and truly immersive. Virtual patients differ in age and gender and answer different medical questions which gives the user the chance to analyze and make conclusions about possible diagnosis. Learners can develop critical skills to effectively diagnose illnesses using a wide variety of medical instruments, medicines, and laboratory tests in a safe, controlled environment with session monitoring in real time. • Industry-leading graphics • Minimum space needed for use is 4 sq. ft. • Unique teleportation feature inside VR section • Fastest setup, load and response time • Smart Center with Spectator feature for managing and tracking training





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			<p>Includes:</p> <ul style="list-style-type: none"> • VR Goggles, • Laptop Computer, • 65” Flat Panel Display with Stand, • Clinic Software w/ Lifetime License • 200+ outpatient cases • Access to Smart Center – web service monitoring and recording training sessions with tracking learning outcomes, learning progress, registering students • Case Manager – outpatient case editing/creation – up to 30 cases (license for 12 months) 				<p>Includes:</p> <ul style="list-style-type: none"> • VR Goggles, • Laptop Computer, • 65” Flat Panel Display with Stand, • Clinic Software w/ Lifetime License • 200+ outpatient cases • Access to Smart Center – web service monitoring and recording training sessions with tracking learning outcomes, learning progress, registering students • Case Manager – outpatient case editing/creation – up to 30 cases (license for 12 months) 	
			<p>VR Headset Specs:</p> <p>Head Strap Soft Strap Designed to offer lightweight comfort for any type of player. This soft strap can be easily adjusted or upgraded with Meta Quest accessories.</p> <p>Optics Specifications Fast-Switch LCD Display 1832 x 1920 Resolution Per Eye 60, 72, 90 Hz Refresh Rate Supported Glasses Compatible o with certificate of exclusivity from the manufacturer</p>				<p>VR Headset Specs:</p> <p>Head Strap Soft Strap Designed to offer lightweight comfort for any type of player. This soft strap can be easily adjusted or upgraded with Meta Quest accessories.</p> <p>Optics Specifications Fast-Switch LCD Display 1832 x 1920 Resolution Per Eye 60, 72, 90 Hz Refresh Rate Supported Glasses Compatible o with certificate of exclusivity from the manufacturer</p>	
			*With Trainings				*With Trainings	
2.2	1	Unit	<p>Virtual Reality Augmented Reality for Maternal-Fetal Birthing Simulator</p> <p>This is a wireless birthing simulator with validated and integrated maternal-fetal physiology and interchangeable static collars to train on all stages of delivery and the rare emergency scenario.</p>	3.2	1	Unit	<p>Virtual Reality Augmented Reality for Maternal-Fetal Birthing Simulator</p> <p>This is a wireless birthing simulator with validated and integrated maternal-fetal physiology and interchangeable static collars to train on all stages of delivery and the rare emergency scenario.</p>	





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		<p>Elevate neonatal training with augmented reality, a solution that helps learners truly visualize childbirth and accelerates neonatal training. It can be used as a standalone application with a holographic manikin or can be integrated with the manikin to enable continuum of learning.</p> <ul style="list-style-type: none"> • Accelerate learning and retention with a complete understanding of physiology in childbirth and postpartum scenarios • Improve skills retention with self-paced and repeatable learning • Save precious faculty time with self-directed learning • Deliver training with minimal space requirements the world's first childbirth simulator to offer real-time, interactive 3D holograms of anatomy for more immersive training. 				<p>Elevate neonatal training with augmented reality, a solution that helps learners truly visualize childbirth and accelerates neonatal training. It can be used as a standalone application with a holographic manikin or can be integrated with the manikin to enable continuum of learning.</p> <ul style="list-style-type: none"> • Accelerate learning and retention with a complete understanding of physiology in childbirth and postpartum scenarios • Improve skills retention with self-paced and repeatable learning • Save precious faculty time with self-directed learning • Deliver training with minimal space requirements the world's first childbirth simulator to offer real-time, interactive 3D holograms of anatomy for more immersive training. 	
		<p>With 5 Scenarios:</p> <ul style="list-style-type: none"> • Normal Delivery • Breech Delivery • Shoulder Dystocia Delivery • Instrumental Delivery • Postpartum Hemorrhage <p>*Batteries: 18.5V, 233Wh Lithium Ion For additional interactivity, students can use HoloLens to elevate 3D models above the physical model and bypass them. Although it is designed to work with the physical simulator, this also allows students to train only with HoloLens.</p>				<p>With 5 Scenarios:</p> <ul style="list-style-type: none"> • Normal Delivery • Breech Delivery • Shoulder Dystocia Delivery • Instrumental Delivery • Postpartum Hemorrhage <p>*Batteries: 18.5V, 233Wh Lithium Ion For additional interactivity, students can use HoloLens to elevate 3D models above the physical model and bypass them. Although it is designed to work with the physical simulator, this also allows students to train only with HoloLens.</p>	





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		<p>This brings an impressive mix of features to the market, including a more realistic and controllable birthing process, better articulation for labor and delivery maneuvers, and predicts APGAR scores based on integrated maternal and fetal physiology. From normal delivery and breech birth to shoulder dystocia and eclampsia, Lucina does it all.</p> <p>1. The advanced delivery mechanism is reliable and stable and it is the quietest on the market Tactile realism of mother and fetus allows learners to establish stages of labor, determine delivery cases by seat and perform more interventions, including extraction using a suction cup</p>			<p>This brings an impressive mix of features to the market, including a more realistic and controllable birthing process, better articulation for labor and delivery maneuvers, and predicts APGAR scores based on integrated maternal and fetal physiology. From normal delivery and breech birth to shoulder dystocia and eclampsia, Lucina does it all.</p> <p>1. The advanced delivery mechanism is reliable and stable and it is the quietest on the market Tactile realism of mother and fetus allows learners to establish stages of labor, determine delivery cases by seat and perform more interventions, including extraction using a suction cup</p>	
		<p>2. Full waist, hip and thigh joint with visible pelvic joint allows practice of obstetric maneuvers including McRobert maneuver Advanced cardiopulmonary resuscitation analysis measures quality and depth of chest compressions, ventilation speed and volume, cardiac output and more Signs of epileptic seizures in the mother include tremor, rapid blinking of the eyes, jaw movement and stertorous breathing</p>			<p>2. Full waist, hip and thigh joint with visible pelvic joint allows practice of obstetric maneuvers including McRobert maneuver Advanced cardiopulmonary resuscitation analysis measures quality and depth of chest compressions, ventilation speed and volume, cardiac output and more Signs of epileptic seizures in the mother include tremor, rapid blinking of the eyes, jaw movement and stertorous breathing</p>	
		<p>3. Postpartum hemorrhage reservoir holds blood to exercise for a wide range of scenarios including class III hemorrhage Extraction of the placenta with detection of the appropriate level of force</p>			<p>3. Postpartum hemorrhage reservoir holds blood to exercise for a wide range of scenarios including class III hemorrhage Extraction of the placenta with detection of the appropriate level of force</p>	





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			for extraction Signs of "a healthy delivery include wailing and APGAR scores after one minute and five minutes				for extraction Signs of "a healthy delivery include wailing and APGAR scores after one minute and five minutes	
			4. The fetus must meet World Health Organization (WHO) standards for a term newborn baby Automatic detection, response and measurement of left lateral tilt, McRoberts maneuver, suprapubic pressure, pressure maneuvers. Rubin II, Zavanelli and uterine massage Maternal tactile realism includes proper dilation and effacement of the cervix.				4. The fetus must meet World Health Organization (WHO) standards for a term newborn baby Automatic detection, response and measurement of left lateral tilt, McRoberts maneuver, suprapubic pressure, pressure maneuvers. Rubin II, Zavanelli and uterine massage Maternal tactile realism includes proper dilation and effacement of the cervix.	
			*With Trainings				*With Trainings	
			LOT 2 TOTAL ABC: Php9,100,000.00				LOT 3 TOTAL ABC: Php9,100,000.00	
3.0	1	L O T	CPR TRAINER		4.0	1	L O T	CPR TRAINER
3.1	1	U nit	CPR Trainer (Set of 5 plus 5 tablet computers)		4.1	1	U nit	CPR Trainer (Set of 5 plus 5 tablet computers)





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		<ul style="list-style-type: none"> • LED Display for real-time feedback (Chest compression, Ventilation) • Chest compression – Total number, Good number, Depth, Speed, Incomplete recoil, Hand position • Ventilation – Total number, Good number, Volume, Rate • Sound, LED ON / OFF • Head tilt-Chin lift Maneuver, Airway opening • Visible Chest rising during ventilation • Semi-permanent use of AED training pads with embedded magnets in manikin (Offering magnetic stickers) <p>SOFTWARE</p> <ul style="list-style-type: none"> • Preloaded into Tablet Computer • Connect up to 6 manikins at the same time • Editable guidelines • Various Training modes: Game mode, Training mode, Evaluation mode • Training for Chest Compression and Ventilation · Count Total Number and Correct Number of Compressions Count Total volume and number of ventilations • Assessment results exportable <p>LOT 3 TOTAL ABC: Php1,950,000.00</p>			<ul style="list-style-type: none"> • LED Display for real-time feedback (Chest compression, Ventilation) • Chest compression – Total number, Good number, Depth, Speed, Incomplete recoil, Hand position • Ventilation – Total number, Good number, Volume, Rate • Sound, LED ON / OFF • Head tilt-Chin lift Maneuver, Airway opening • Visible Chest rising during ventilation • Semi-permanent use of AED training pads with embedded magnets in manikin (Offering magnetic stickers) <p>SOFTWARE</p> <ul style="list-style-type: none"> • Preloaded into Tablet Computer • Connect up to 6 manikins at the same time • Editable guidelines • Various Training modes: Game mode, Training mode, Evaluation mode • Training for Chest Compression and Ventilation · Count Total Number and Correct Number of Compressions Count Total volume and number of ventilations • Assessment results exportable <p>LOT 4 TOTAL ABC: Php1,950,000.00</p>	





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4.0	1	L O T	PHYSIOLOGY TEACHING SYSTEM	5.0	1	L O T	PHYSIOLOGY TEACHING SYSTEM
4.1	4	U nit	Physiology Teaching System A system for the teaching of human and animal physiology Includes at least 90 experiments and at least 250 exercises in cardiovascular, neuromuscular and spirometric physiology, and others. Also include: ■ Control Module with wire compatible Biopotential (ECG, EMG, EEG, GSR) Amplifier, Built-in Stimulator ■ Spirometer Flow Head, Heart Sounds Sensor ■ 1 Unit Iron Stand ■ 1 Unit Spirometer Collapsible Tubing ■ 10 pieces Spirometer Mouthpiece ■ 1 Unit Laptop with learning module software	5.1	4	U nit	Physiology Teaching System A system for the teaching of human and animal physiology Includes at least 90 experiments and at least 250 exercises in cardiovascular, neuromuscular and spirometric physiology, and others. Also include: ■ Control Module with wire compatible Biopotential (ECG, EMG, EEG, GSR) Amplifier, Built-in Stimulator ■ Spirometer Flow Head, Heart Sounds Sensor ■ 1 Unit Iron Stand ■ 1 Unit Spirometer Collapsible Tubing ■ 10 pieces Spirometer Mouthpiece ■ 1 Unit Laptop with learning module software





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	<ul style="list-style-type: none"> ■ Pulse Probe, Temperature Sensor ■ Non-Invasive Blood Pressure Sensor ■ Grip Force Sensor, Muscle Twitch Sensor ■ Single-axis Goniometer, Patellar Reflex Hammer ■ Pulse Oximeter, Respiration Monitor ■ Event Marker, Force Transducer ■ Dissolved Oxygen Sensor ■ Nerve Bath Chamber, Needle Electrodes ■ Bipolar Stimulating Electrode ■ Headphones <p>Human Physiology Measurements:</p> <ul style="list-style-type: none"> ■ ECG, EMG, GSR ■ Hemispheric EEG ■ Blood Pressure, Heart Sounds ■ Spirometry ■ Reflex Testing, Reaction Times, Polygraph ■ Facial EMG, Skin Temperature ■ Stroop Test, Eriksen Flanker Test <p>Animal Physiology Measurements:</p> <ul style="list-style-type: none"> ■ Muscle Contraction ■ Frog ECG ■ Action Potentials ■ Cellular Metabolism ■ Mechano-reflexes <p>Human Circulation:</p> <ul style="list-style-type: none"> ■ Blood Pressure, Peripheral Circulation, and Body Position ■ Blood Pressure, Peripheral Circulation, and Imposed conditions ■ Pulse Wave Velocity <p>Human Heart:</p> <ul style="list-style-type: none"> ■ The Electrocardiogram (ECG) and the Pulse 					<ul style="list-style-type: none"> ■ Pulse Probe, Temperature Sensor ■ Non-Invasive Blood Pressure Sensor ■ Grip Force Sensor, Muscle Twitch Sensor ■ Single-axis Goniometer, Patellar Reflex Hammer ■ Pulse Oximeter, Respiration Monitor ■ Event Marker, Force Transducer ■ Dissolved Oxygen Sensor ■ Nerve Bath Chamber, Needle Electrodes ■ Bipolar Stimulating Electrode ■ Headphones <p>Human Physiology Measurements:</p> <ul style="list-style-type: none"> ■ ECG, EMG, GSR ■ Hemispheric EEG ■ Blood Pressure, Heart Sounds ■ Spirometry ■ Reflex Testing, Reaction Times, Polygraph ■ Facial EMG, Skin Temperature ■ Stroop Test, Eriksen Flanker Test <p>Animal Physiology Measurements:</p> <ul style="list-style-type: none"> ■ Muscle Contraction ■ Frog ECG ■ Action Potentials ■ Cellular Metabolism ■ Mechano-reflexes <p>Human Circulation:</p> <ul style="list-style-type: none"> ■ Blood Pressure, Peripheral Circulation, and Body Position ■ Blood Pressure, Peripheral Circulation, and Imposed conditions ■ Pulse Wave Velocity <p>Human Heart:</p> <ul style="list-style-type: none"> ■ The Electrocardiogram (ECG) and the Pulse 	
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		<ul style="list-style-type: none"> ■ Heart Sounds and the Electrocardiogram (ECG) ■ The Effects of Exercise on the Electrocardiogram (ECG) and the Pulse ■ The Six-Lead Electrocardiogram ■ The Diving Reflex ■ Heart Rate Variability (HRV) <p>Human Muscle:</p> <ul style="list-style-type: none"> ■ Grip Strength and Electromyogram (EMG) Activity ■ Electromyogram Activity in Antagonistic Muscles ■ EMG and Arm Wrestling ■ Oculomotor Muscle Activity ■ Response, Work, Summation and Tetanus in Human Muscle ■ Kinesiology Targeted Muscles ■ Human Muscle Twitch <p>Human Spirometry:</p> <ul style="list-style-type: none"> ■ Breathing Parameters at Rest and after Exercise ■ Breathing and Gravity ■ Factors that Affect Breathing Patterns ■ Lung Volumes and Heart Rate 				<ul style="list-style-type: none"> ■ Heart Sounds and the Electrocardiogram (ECG) ■ The Effects of Exercise on the Electrocardiogram (ECG) and the Pulse ■ The Six-Lead Electrocardiogram ■ The Diving Reflex ■ Heart Rate Variability (HRV) <p>Human Muscle:</p> <ul style="list-style-type: none"> ■ Grip Strength and Electromyogram (EMG) Activity ■ Electromyogram Activity in Antagonistic Muscles ■ EMG and Arm Wrestling ■ Oculomotor Muscle Activity ■ Response, Work, Summation and Tetanus in Human Muscle ■ Kinesiology Targeted Muscles ■ Human Muscle Twitch <p>Human Spirometry:</p> <ul style="list-style-type: none"> ■ Breathing Parameters at Rest and after Exercise ■ Breathing and Gravity ■ Factors that Affect Breathing Patterns ■ Lung Volumes and Heart Rate 	
		<p>Human Nerve:</p> <ul style="list-style-type: none"> ■ Auditory and Visual Reflexes ■ Stretch Receptors and Reflexes with Reflex Hammer ■ Stretch Receptors and Reflexes with Plethysmograph ■ Human to Human Interface <p>Animal:</p> <ul style="list-style-type: none"> ■ Skeletal Muscle - Work, Summation and Tetanus ■ Smooth Muscle Contraction ■ Byssal Retractor Muscle ■ Frog Electrocardiogram 				<p>Human Nerve:</p> <ul style="list-style-type: none"> ■ Auditory and Visual Reflexes ■ Stretch Receptors and Reflexes with Reflex Hammer ■ Stretch Receptors and Reflexes with Plethysmograph ■ Human to Human Interface <p>Animal:</p> <ul style="list-style-type: none"> ■ Skeletal Muscle - Work, Summation and Tetanus ■ Smooth Muscle Contraction ■ Byssal Retractor Muscle ■ Frog Electrocardiogram 	





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			<ul style="list-style-type: none"> ■ Crayfish Heart ■ Membrane Potentials ■ Compound Action Potentials ■ Cockroach Leg Mechanoreceptors ■ Cockroach Cercal Sense Organs 				<ul style="list-style-type: none"> ■ Crayfish Heart ■ Membrane Potentials ■ Compound Action Potentials ■ Cockroach Leg Mechanoreceptors ■ Cockroach Cercal Sense Organs 		
			*With Trainings				*With Trainings		
			LOT 4 TOTAL ABC: Php11,394,800.00				LOT 5 TOTAL ABC: Php11,394,800.00		
5.0	1	L O T	CHEST DRAIN & NEEDLE DECOMPRESSION TRAINER		6.0	1	L O T	CHEST DRAIN & NEEDLE DECOMPRESSION TRAINER	
5.1	1	U nit	<i>Chest Drain & Needle Decompression Trainer</i>		6.1	1	U nit	<i>Chest Drain & Needle Decompression Trainer</i>	
			<p>This is a Simulator to deliver training in both surgical and guide-wire assisted thoracostomy and thoracentesis, chest drainage and needle decompression techniques. Chest tube insertion is for both types of pads, with the Advanced model's eco-lucent material allowing practice of Seldinger's ultrasound technique.</p> <ul style="list-style-type: none"> • Reservoirs in the rear of the model can be filled with fluid or mock blood to represent pleural effusion • Needle decompression air reservoirs provide realistic releases of air on insertion of needle • Anatomically accurate representation of an adult male torso with raised arms • Standard Pads have a Pleural Layer which has realistic give and "pop" when puncturing with forceps or finger • Combined use of the Advanced Pads and the chest reservoirs allows for 				<p>This is a Simulator to deliver training in both surgical and guide-wire assisted thoracostomy and thoracentesis, chest drainage and needle decompression techniques. Chest tube insertion is for both types of pads, with the Advanced model's eco-lucent material allowing practice of Seldinger's ultrasound technique.</p> <ul style="list-style-type: none"> • Reservoirs in the rear of the model can be filled with fluid or mock blood to represent pleural effusion • Needle decompression air reservoirs provide realistic releases of air on insertion of needle • Anatomically accurate representation of an adult male torso with raised arms • Standard Pads have a Pleural Layer which has realistic give and "pop" when puncturing with forceps or finger • Combined use of the Advanced Pads and the chest reservoirs allows for 		





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		<p>the simulation of pleural effusion</p> <p>VERSATILITY</p> <ul style="list-style-type: none"> • Able to perform the Seldinger Technique • Trainer can be used in a sitting or supine position <p>CLEANING</p> <ul style="list-style-type: none"> • Clean the product with a damp soft cloth or sponge, using warm water with mild detergent • Always drain, clean and dry after use to ensure that the trainer remains in good condition <p>ANATOMY</p> <ul style="list-style-type: none"> • Adult male torso with raised arms • Internal landmarks: ribs, lung and diaphragm <p>SKILLS GAINED</p> <ul style="list-style-type: none"> • Needle decompression/ needle thoracostomy of a tension pneumothorax at both the 2nd and 5th intercostal space <ul style="list-style-type: none"> • Ultrasound guided chest tube insertion, also known as the Seldinger Technique, including insertion of the needle into the pleural space under direct vision and ultrasonic recognition of chest structures <ul style="list-style-type: none"> • Open or cut-down chest tube insertion, including recognition of correct position, surgical incision, blunt dissection through the chest wall, perforation of pleura and finger sweep <ul style="list-style-type: none"> • Suturing of the tube to the chest wall <ul style="list-style-type: none"> • Use of a chest drain, including using with an underwater seal 				<p>the simulation of pleural effusion</p> <p>VERSATILITY</p> <ul style="list-style-type: none"> • Able to perform the Seldinger Technique • Trainer can be used in a sitting or supine position <p>CLEANING</p> <ul style="list-style-type: none"> • Clean the product with a damp soft cloth or sponge, using warm water with mild detergent • Always drain, clean and dry after use to ensure that the trainer remains in good condition <p>ANATOMY</p> <ul style="list-style-type: none"> • Adult male torso with raised arms • Internal landmarks: ribs, lung and diaphragm <p>SKILLS GAINED</p> <ul style="list-style-type: none"> • Needle decompression/ needle thoracostomy of a tension pneumothorax at both the 2nd and 5th intercostal space <ul style="list-style-type: none"> • Ultrasound guided chest tube insertion, also known as the Seldinger Technique, including insertion of the needle into the pleural space under direct vision and ultrasonic recognition of chest structures <ul style="list-style-type: none"> • Open or cut-down chest tube insertion, including recognition of correct position, surgical incision, blunt dissection through the chest wall, perforation of pleura and finger sweep <ul style="list-style-type: none"> • Suturing of the tube to the chest wall <ul style="list-style-type: none"> • Use of a chest drain, including using with an underwater seal 	
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			*With Trainings				*With Trainings
			LOT 5 TOTAL ABC:				LOT 6 TOTAL ABC:
			Php1,250,000.00				Php1,250,000.00

Prepared By:

Noted By:

MS. MA. EVA L. OMPOC
 Assistant Head, BAC Secretariat

DR. ALLAN ROY B. ELNAR
 BAC Chairperson



Certification Date: 24 January 2024
 Recertification due date: 24 January 2027
 For verification of the certificate please
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 check and type the registration number)



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