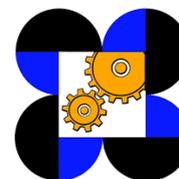


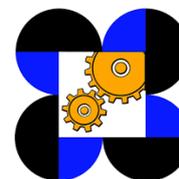
**Materials Science Division (MSD) Technical Services
(Standardized Fees)**

I. Nanotechnology/Membrane Laboratory

No.	SERVICE NAME	SAMPLE REQUIREMENTS	REQUIRED FEES, Php	
			Client	Student
A.1	Use of Compression Molding machine	Sample/s to be processed (1-8kg.)	1,049.00	839.00
A.2	Use of Electrospinning apparatus	Sample/s to be processed (100-300grams, required solvent)	889.00	711.00
A.3	Use of Grinder	Sample/s to be processed (3-10kg.)	610.00	488.00
A.4	Use of Injection Molding Machine	Sample/s to be processed (1-10kg)	874.00	698.00
A.5	Use of Single Screw Extruder	Sample/s to be processed (1-10kg.)	1,362.00	1,1090.00
A.6	Use of Twin Screw Extruder	Sample/s to be processed (1-10kg.)	4,137.00	3,310.00
A.7	Use of Two Roll Mill and Compression Machine	Sample/s to be processed (1-8kg.)	2,227.00	1,782.00
A.8	Use of Vacuum Mixer	Sample/s to be processed (100-600grams)	2,868.00	2,294.00
A.9	Firing Using 5kW Kiln (Firing Temperature: 800°C-1000°C)	Sample/s to be tested (powder-maximum of 1kg., solid- maximum of 2pcs. bricks with size 6cm x 12cm x 24cm (L x W x H))	1,018.00	814.00
A.10	Pot milling of Mineral Powder, 500g – 1kg capacity (24 hours)	Sample/s to be processed (500-1000 grams)	1,844.00	1,476.00
B.1	Determination of water absorption	Sample/s to be tested (3 samples)	1,037.00	830.00
B.2	Elemental Analysis by X-ray Fluorescence / Wavelength Dispersive (WD-XRF): One sample	Sample/s to be tested (1 sample, at least 10 gm)	4,685.00	3,748.00
B.3	Particle Size Analysis by Dynamic Light	Sample/s to be tested (at least 3 grams powder samples, dispersing	2,611.00	2,089.00



	Scattering: One sample	medium, Refractive Index (RI) of the powder and RI of dispersing medium)		
B.4	Specular Gloss Measurement	Sample/s to be tested (3 replicates of test panels, minimum size of 50mm x 100mm)	536.00	428.00
B.5	X-ray Diffraction Analysis (raw data - ASCII file)	Sample/s to be tested (at least 10 grams powder)	4,480.00	3,583.00
B.6	Surface Roughness by Imaging with measurement by Atomic Force Microscope (AFM)	Sample/s to be tested (1 flat sample, maximum diameter of 18mm, maximum height of 8mm)	4,338.00	3,471.00
B.7	TEM Imaging and Diffraction (4 images and 4 SEAD images /sample or 4 images and 2 NBD images/sample)	Sample/s to be tested (at least 1gram powder/colloidal solution)	16,169.00	12,936.00
B.8	TEM Imaging (Bright and Dark Field) (4 images/ sample)	Sample/s to be tested (at least 1 gram of powder/colloidal solution)	11,925.00	9,540.00
B.9	TEM Imaging EDS Analysis (4 images and 4 points analysis /sample)	Sample/s to be tested (at least 1 gram powder/colloidal solution)	16,169.00	12,936.00
B.10	TEM Imaging, Diffraction and EDS (4 images and 4 SEAD images /sample or 4 images and 2 NBD images/sample)	Sample/s to be tested (at least 1 gram powder/colloidal solution)	17,043.00	13,635.00
B.11	X-ray Diffraction Analysis(no soft copy): one sample	Sample/s to be tested (at least 10 grams powder)	4,480.00	3,583.00
C.1	Preliminary Evaluation of One Red Clay Sample (one month)	Sample/s to be tested (10kg)	7,615.00	6,092.00

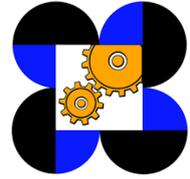


II. Materials Development(Matdev) Laboratory

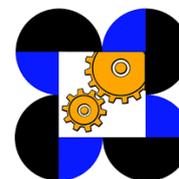
NO.	SERVICE NAME	LIST OF REQUIREMENTS	REQUIRED FEES, Php	
			Client	Student
A.1	Composite FDM 3D Printing using Markforged Marktwo (Material: Pure Onyx)	Sample/s to be processed: - .STL file of the sample to be printed - Printable within 8 hours using the parameters set by the client - Design must be printable within 320 mm x 132 mm x 154 mm (L x W x H)	2135.00	1707.00
A.2	Composite FDM 3D Printing using Markforged Marktwo (Material: Onyx w/ continuous Carbon fiber)	Sample/s to be processed: - .STL file of the sample to be printed - Printable within 8 hours using the parameters set by the client - Design must be printable within 320 mm x 132 mm x 154 mm (L x W x H)	7538.00	6030.00
A.3	Composite FDM 3D Printing using Markforged Marktwo (Material: Onyx w/ continuous Fiber glass)	Sample/s to be processed: - .STL file of the sample to be printed - Printable within 8 hours using the parameters set by the client - Design must be printable within 320 mm x 132 mm x 154 mm (L x W x H)	4800.00	3839.00
A.4	Composite FDM 3D Printing using Markforged Marktwo (Material: Onyx w/ continuous Kevlar)	Sample/s to be processed: - .STL file of the sample to be printed - Printable within 8 hours using the parameters set by the client - Design must be printable within 320 mm x 132 mm x 154 mm (L x W x H)	5487.00	4389.00
A.5	Composite FDM 3D Printing using Markforged Marktwo (Material: Onyx w/	Sample/s to be processed: - .STL file of the sample to be printed	5487.00	4389.00



	continuous HSHT Glass)	<ul style="list-style-type: none"> - Printable within 8 hours using the parameters set by the client - Design must be printable within 320 mm x 132 mm x 154 mm (L x W x H) 		
A.6	FDM 3D Printing using Ultimaker S5	<p>Sample/s to be processed:</p> <ul style="list-style-type: none"> - .STL file of the sample to be printed - Printable within 8 hours using the parameters set by the client - Design must be printable within 330 mm x 240 mm x 300 mm (L x W x H) 	1963.00	1570.00
A.7	High Temp. FDM 3D Printing using Intamsys Funmat Pro 410 (Material: PEKK)	<p>Sample/s to be processed:</p> <ul style="list-style-type: none"> - .STL file of the sample to be printed - Printable within 8 hours using the parameters set by the client - Design must be printable within 305 mm x 305 mm x 406 mm (L x W x H) 	5150.00	4120.00
A.8	High Temp. FDM 3D Printing using Intamsys Funmat Pro 410 (Material: PEI)	<p>Sample/s to be processed:</p> <ul style="list-style-type: none"> - .STL file of the sample to be printed - Printable within 8 hours using the parameters set by the client - Design must be printable within 305 mm x 305 mm x 406 mm (L x W x H) 	4067.00	3253.00
A.9	High Temp. FDM 3D Printing using Intamsys Funmat Pro 410 (Material: PEEK)	<p>Sample/s to be processed:</p> <ul style="list-style-type: none"> - .STL file of the sample to be printed - Printable within 8 hours using the parameters set by the client - Design must be printable within 305 mm x 305 mm x 406 mm (L x W x H) 	5036.00	4028.00
A.10	SLA 3D Printing using FORMLABS FORM 2 (Ceramic)	<p>Sample/s to be processed:</p> <ul style="list-style-type: none"> - .STL file of the sample to be printed - Design printing time allowable within 8 hours 	2964.00	2371.00



		- Design must be printable within 145 mm x 145 mm x 175 mm (L x W x H)		
A.11	SLA 3D Printing using FORMLABS FORM 2 (Resin Type: Standard Resin)	Sample/s to be processed: - .STL file of the sample to be printed - Design printing time allowable within 8 hours - Design must be printable within 145 mm x 145 mm x 175 mm (L x W x H)	3694.00	2955.00
A.12	SLA 3D Printing using FORMLABS FORM 2 (Resin Type: Tough Resin)	Sample/s to be processed: - .STL file of the sample to be printed - Design printing time allowable within 8 hours - Design must be printable within 145 mm x 145 mm x 175 mm (L x W x H)	5024.00	4018.00
A.13	SLA 3D Printing using FORMLABS FORM 2 (Resin Type: High Temp. Resin)	Sample/s to be processed: - .STL file of the sample to be printed - Design printing time allowable within 8 hours - Design must be printable within 145 mm x 145 mm x 175 mm (L x W x H)	5595.00	4475.00
A.14	SLA 3D Printing using FORMLABS FORM 2 (Resin Type: Dental SG Resin)	Sample/s to be processed: - .STL file of the sample to be printed - Design printing time allowable within 8 hours - Design must be printable within 145 mm x 145 mm x 175 mm (L x W x H)	7308.00	5847.00
A.15	SLA 3D Printing using FORMLABS FORM 2 (Resin Type: Dental LT Resin)	Sample/s to be processed: - .STL file of the sample to be printed - Design printing time allowable within 8 hours - Design must be printable within 145 mm x 145 mm x 175 mm (L x W x H)	8451.00	6760.00
B.1	Artec Space Spider 3D Handheld Scanner (Small Size 5-10 cm)	Sample/s to be processed: - Actual sample to be scanned	1133.00	905.00



		<ul style="list-style-type: none"> - Dimensions (L, W, H) not smaller than 5 cm and not exceeding 10 cm - Sample must be opaque - Samples must be free from dust, rust, or any kind of debris 		
B.2	Artec Space Spider 3D Handheld Scanner (Medium Size 10-20 cm)	<p>Sample/s to be processed:</p> <ul style="list-style-type: none"> - Actual sample to be scanned - Dimensions (L, W, H) not smaller than 10 cm and not exceeding 20 cm - Sample must be opaque - Samples must be free from dust, rust, or any kind of debris 	1628.00	1301.00
B.3	Artec Space Spider 3D Handheld Scanner (Large Size 20-30 cm)	<p>Sample/s to be processed:</p> <ul style="list-style-type: none"> - Actual sample to be scanned - Dimensions (L, W, H) not smaller than 20 cm and not exceeding 30 cm - Sample must be opaque - Samples must be free from dust, rust, or any kind of debris 	3255.00	2604.00
C.1	2D and 3D Optical Imaging using Keyence VHX-7000	Sample/s to be tested (1 sample, maximum size of 30 mm x 30 mm)	2617.00	2094.00
C.2	2D and 3D Optical Imaging with Measurements using Keyence VHX-7000	Sample/s to be tested (1 sample, maximum size of 30 mm x 30 mm)	3278.00	2622.00
C.3	Dynamic Mechanical Analysis with Tg Determination using Hitachi DMA7100 w/ positive Temp.	Sample/s to be tested (Sample dimensions dependent on the material according to the manual and published studies)	4012.00	3211.00
C.4	Dynamic Mechanical Analysis with Tg Determination using Hitachi DMA7100 w/ negative Temp.	Sample/s to be tested (Sample dimensions dependent on the material according to the manual and published studies)	5564.00	4453.00