




Laboratory Instruments
In
CLS Department
Female Students Campus \ Building (11)





Done by
Laboratory & Safety Committee

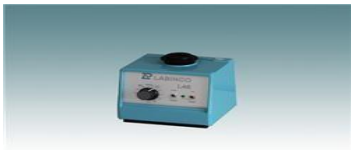



1\ Biochemistry Labs (66-57-59)




Responsible Person \ Shaikha Alsubaie





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No.	Device Name	Picture	Description and applications	Instrument Information
1	Spectrophotometer Spekol 1300 Analytik jena		<ul style="list-style-type: none"> - To measure the chemical substances absorbed UV or visible light by measuring the intensity of absorbed light - Max run 4 samples 	<ul style="list-style-type: none"> - Location\ 11F57 - Courses \ Bachelor - Uses of the instrument\ Education - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good
2	Spectrophotometer 6405 UV/Vis. Jenway		<ul style="list-style-type: none"> - To measure the chemical substances absorbed UV or visible light by measuring the intensity of absorbed light - Max run 4 samples 	<ul style="list-style-type: none"> - Location\11F66 - Courses\ Bachelor - Uses of the instrument\ Education - Lab capacity\25 students - No. of instrument in the lab\2 - Instrument status\Good
3	Spectrophotometer PD 303 UV, APEL		<ul style="list-style-type: none"> - To measure the chemical substances absorbed UV or visible light by measuring the intensity of absorbed light - Max run 4 samples 	<ul style="list-style-type: none"> - Location\11F57-11F59 - Courses\ Bachelor - Uses of the instrument\ Education - Lab capacity\25 students - No. of instrument in the lab\4 - Instrument status\Good

4	Spectrophotometer Ultrospec II, LKB		<ul style="list-style-type: none"> - To measure the chemical substances absorbed UV or visible light by measuring the intensity of absorbed light - Max run 8 samples - Two lamps can use 	<ul style="list-style-type: none"> - Location\11F59 - Courses\ Bachelor - Uses of the instrument\ Education - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good
5	Spectrophotometer Libra S22, Biochrom		<ul style="list-style-type: none"> - To measure the chemical substances absorbed UV or visible light by measuring the intensity of absorbed light - Max run 8 samples 	<ul style="list-style-type: none"> - Location\11F59-11F66-11F57 - Courses\ Bachelor - Uses of the instrument\ Education - Lab capacity\25 students - No. of instrument in the lab\9 - Instrument status\Good
6	Weighted scale, Pioneer		<ul style="list-style-type: none"> - Weighing, Parts Counting, Percent weighing 	<ul style="list-style-type: none"> - Location\11F59-11F66-11F57 - Courses\ Bachelor - Uses of the instrument\ Education - Lab capacity\25 students - No. of instrument in the lab\9 - Instrument status\Good
7	Stirring hot plate, Thermix 310T		<ul style="list-style-type: none"> - Stirring hotplate, percaline, heats up very fast, and stirring the substance 	<ul style="list-style-type: none"> - Location\11F57 - Courses\ Bachelor - Uses of the instrument\ Education - Lab capacity\25 students - No. of instrument in the lab\2 - Instrument status\Good

8	Vortex, Labinco		- Use to mix the samples with different speeds	- Location\11F59-11F66-11F57 - Courses\ Bachelor - Uses of the instrument\ Education - Lab capacity\25 students - No. of instrument in the lab\5 - Instrument status\Good
9	Dry Bath, DB006		- Use to heat the samples with different sets of temperature from 25 up to 100 C	- Location\11F59-11F66-11F57 - Courses\ Bachelor - Uses of the instrument\ Education - Lab capacity\25 students - No. of instrument in the lab\3 - Instrument status\Good
10	Water path, GFL		- To heat the samples with steam water Set from 25 up to 100 C	- Location\11F59-11F66-11F57 - Courses\ Bachelor - Uses of the instrument\ Education - Lab capacity\25 students - No. of instrument in the lab\13 - Instrument status\Good
11	Fluorimetry, Jenway		- Fluorimeter model is ideal for the most sensitive determinations with emission wavelengths up to 650nm.	- Location\11F66-11F57 - Courses\ Bachelor - Uses of the instrument\ Education - Lab capacity\25 students - No. of instrument in the lab\2 - Instrument status\Good

12	Centrifuge, Hsiangtai		- Centrifuge the sample to separate the component according to the density	- Location\11F66 - Courses\ Bachelor - Uses of the instrument\ Education - Lab capacity\20 students - No. of instrument in the lab\1 - Instrument status\Need accessories
13	Dry Heat Oven Memmert		- Utilizes hot air that is either free from water vapour, or has very little of it, and where this moisture plays a minimal or no role in the process of sterilization	- Location\11F66-11F57 - Courses\ Bachelor - Uses of the instrument\ Education - Lab capacity\25 students - No. of instrument in the lab\2 - Instrument status\Good
14	PH meter, PH/ORP meter, Hanna		- Can be used for ion concentration (ISE) and Oxidation Reduction Potential (ORP) in the mV range. - Range: PH: -2.00 to 16.00pH, mV- +/- 399.9mV; +/- 2000mV - Temperature: -9.9 to 120 C	- Location\11F66-11F57 - Courses\ Bachelor - Uses of the instrument\ Education - Lab capacity\25 students - No. of instrument in the lab\2 - Instrument status\Good




15	Water distillation, GFL		- Provide Pure water	- Location\11F57 - Courses\ Bachelor - Uses of the instrument\ Education - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good
16	SUPREME AIR FUME HOODS		Air fume hoods are used in laboratories to capture and remove hazardous airborne contaminants such as gases, vapors, aerosols, and dust from the work area, protecting users from exposure and preventing the spread of these substances into the general lab air.	- Location\11F57-11F59-11F66 - Courses\ Bachelor - Uses of the instrument\ Education - Lab capacity\25 students - No. of instrument in the lab\7 - Instrument status\Good
17	HPLC- High Performance Liquid Chromatography, Thermoscientific		- HPLC is a chromatographic technique used to split a mixture of compounds. It has vast applications in the fields of analytical chemistry, biochemistry and industries.	- Location\11F66 - Courses\ Bachelor-Master - Uses of the instrument\ Education-Research - Lab capacity\20 students - No. of instrument in the lab\1 - Instrument status\Need maintenance
18	Ice maker, BREMA		- Ice maker is used to make ice that can be used to provide low temperature during working or transfer of cultures or enzymes maintained at low temperature	- Location\11F66 - Courses\ Bachelor-Master - Uses of the instrument\ Education-Research - Lab capacity\20 students - No. of instrument in the lab\1 - Instrument status\Good





19	Deep freezer Thermoscientific		- Ultra low freezer is used to store biological samples up to -30 C	- Location\11F66 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Research - Lab capacity\20 students - No. of instrument in the lab\2 - Instrument status\Good
20	Refrigerator		- 4C used to store biological samples and kits	- Location\11F66-11F57-11F59 - Courses\ Bachelor - Uses of the instrument\ Education - Lab capacity\20 students - No. of instrument in the lab\5 - Instrument status\Good




2\ Haematology Labs (52-55)




Responsible Person \ Eman Alhaidry




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No.	Device	Picture	Description and applications	Instrument Information
1	Water bath		<ul style="list-style-type: none"> - Provides heated water of required temperature. - Necessary for reactions or experiments requiring specific temperature 	<ul style="list-style-type: none"> - Location\11F52 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\25 students - No. of instrument in the lab\4 - Instrument status\Good
2	Micro centrifuge		<ul style="list-style-type: none"> - Cell centrifugation; pelleting; separation by density gradients by using Eppendorf tubes to a maximum of 15000 RPM 	<ul style="list-style-type: none"> - Location\11F52-11F55 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\25 students - No. of instrument in the lab\6 - Instrument status\Good
3	Spectrophotometer		<ul style="list-style-type: none"> - Measure the intensity of light as a function of the colour of light; help to quantify biological molecules 	<ul style="list-style-type: none"> - Location\11F52 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\25 students - No. of instrument in the lab\4 - Instrument status\Good

4	FRI-H 18 Light-Blood Cell Counter		<ul style="list-style-type: none"> - Analyses blood cell parameters like WBC count, RBC count and Platelet Count 	<ul style="list-style-type: none"> - Location\11F52 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\25 students - No. of instrument in the lab\2 - Instrument status\Need reagents
5	Olympus light binocular microscope		<ul style="list-style-type: none"> - Used for visualizing minute structures, including blood cells 	<ul style="list-style-type: none"> - Location\11F52-11F55 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\25 students - No. of instrument in the lab\39 - Instrument status\Good
6	Multi head microscope		<ul style="list-style-type: none"> - Used in medical teaching and biological teaching - They also can be used for diagnosis 	<ul style="list-style-type: none"> - Location\11F52 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Need Lamp
7	Dry Heat Oven Memmert		<ul style="list-style-type: none"> - Utilizes hot air that is either free from water vapour, or has very little of it, and where this moisture plays a minimal or no role in the process of sterilization 	<ul style="list-style-type: none"> - Location\11F52-11F55 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\25 students - No. of instrument in the lab\2 - Instrument status\Good

8	Sysmex sp-1000i automated slide preparer-strainer		- Fast and safe for the routines of medium and large laboratories, improving the quality of microscopic analysis in complete blood counts.	- Location\11F55 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Need reagents
9	Biosealer CR4		- For sealing PVC-tubes, especially for blood bags tubes or plasma feres sets	- Location\11F53 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good
10	SCIOLOGEX DM0412 CLINICAL CENTRIFUGE		- For the separation of serum, plasma, urea, blood samples and other routine applications in hospital and research laboratories	- Location\11F55 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\25 students - No. of instrument in the lab\7 - Instrument status\Good

11	The OHAUS Scout® Pro scale		-Designed for use in laboratory or education applications, features easy-to-use two-button operation, a high-contrast LCD display, multiple weighing units,	- Location\11F53 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good
12	BOECO CENTRIFUGE C-28A		- Used for the preparation of samples in research laboratories.	- Location\11F53 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\5 students - No. of instrument in the lab\1 - Instrument status\Good
13	Hettich ROTOFIX 32 A		- Used for the preparation of samples in research laboratories.	- Location\11F55 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\25 students - No. of instrument in the lab\7 - Instrument status\Good



14	Grant QBA2 Analog Dry Block Heater		<ul style="list-style-type: none"> - Source of precision temperature control for general, routing applications and sensitive analytical procedures 	<ul style="list-style-type: none"> - Location\11F55-11F52 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\25 students - No. of instrument in the lab\8 - Instrument status\Good
15	ID- Centrifuge and incubator		<ul style="list-style-type: none"> - Incubate up to 24 ID- cards in racks at 37 °C - Silent centrifuge for up to 12 ID-cards with automatic balance control 	<ul style="list-style-type: none"> - Location\11F55 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good
16	CLAY ADAMS SERO-FUGE 2001 2002 CENTRIFUGE		<ul style="list-style-type: none"> - Facilitate blood testing procedures 	<ul style="list-style-type: none"> - Location\11F55 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\25 students - No. of instrument in the lab\2 - Instrument status\Good




17	SUPREME AIR FUME HOODS		Air fume hoods are used in laboratories to capture and remove hazardous airborne contaminants such as gases, vapors, aerosols, and dust from the work area, protecting users from exposure and preventing the spread of these substances into the general lab air.	<ul style="list-style-type: none"> - Location\11F55-11F52 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\25 students - No. of instrument in the lab\3 - Instrument status\Good
18	Protein Electrophoresis, Sebia		<ul style="list-style-type: none"> - Protein electrophoresis technique, routinely used in clinical laboratories. - Used for screening of protein abnormalities in serum and other biological fluids. 	<ul style="list-style-type: none"> - Location\11F52 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good
19	Refrigerator		- 4C used to store biological samples and kits	<ul style="list-style-type: none"> - Location\11F53-11F55-11F52 - Courses\ Bachelor - Uses of the instrument\ Education - Lab capacity\20 students - No. of instrument in the lab\5 - Instrument status\Good





3\ Histology Lab (36)




Responsible Person \ Hajar Alshahrani


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No.	Device	Picture	Description and applications	Instrument Information
1	CUT 5062 Semiautomatic precision microtome		<ul style="list-style-type: none"> - Standard unit for paraffin sections and research-, plastic- and industrial applications. - The semiautomatic unit offers additional advantages against our manual microtomes whilst retaining all essential features of this series. - The modular design allows custom-made assemblies from a broad range of accessories. 	<ul style="list-style-type: none"> - Location\11F36 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\25 students - No. of instrument in the lab\8 - Instrument status\Good
2	CUT 4062 The manual precision microtome		<ul style="list-style-type: none"> - High precision specimen feed - Smoothly running hand wheel - Hand wheel lock in each position - Trimming function in 4 steps - Specimen retraction upon backstroke - Acoustic signal for end position of specimen movement - Vibration free microtome base plate 	<ul style="list-style-type: none"> - Location\11F36 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\25 students - No. of instrument in the lab\8 - Instrument status\Good




3	MEV Floor standing ECO cryostat		<ul style="list-style-type: none"> - For extra convenience the system includes a spacious stainless steel chamber, 24 easily accessible freezing positions and well illuminated cooling chamber that can be effectively cooled down to -35 °C. 	<ul style="list-style-type: none"> - Location\11F36 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good
4	MTM I & II Tissue Processor		<ul style="list-style-type: none"> - The MTM II fast tissue processor offers a cost-efficient and user friendly alternative for fast biopsies processing and overnight batch tissue processing needs of every histology laboratory. - The instrument can either be used for fully automated fast biopsy processing or high volume overnight batches of up to 300 samples 	<ul style="list-style-type: none"> - Location\11F36 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good
5	MTP Tissue Processor		<ul style="list-style-type: none"> - The MTP carousel tissue processor guarantees gentle and highly reliable specimen processing in conjunction with state of the art control features. - The specimen throughput can be doubled to 240 cassettes per run with a second transport basket 	<ul style="list-style-type: none"> - Location\11F36 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\25 students - No. of instrument in the lab\2 - Instrument status\Good



6	MSM Robust carousel tissue strainer		<ul style="list-style-type: none"> - The MSM carousel stainer is designed to meet the basic requirements for routine staining in histology and cytology laboratories. - The instrument is equipped with either 12 or 24 incubation system that contain up to 400ml. 	<ul style="list-style-type: none"> - Location\11F36 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good
7	Nikon YS100 Biological Microscope		<ul style="list-style-type: none"> - Objective lenses (Anti-mold) Achromat 4x, 10x, 40x, 100x oil - Illumination Halogen 6v 20w 	<ul style="list-style-type: none"> - Location\11F36 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\25 students - No. of instrument in the lab\6 - Instrument status\Good
8	MWB Tissue floatation bath		<ul style="list-style-type: none"> - Is designed for stretching of paraffin sections in histology, research and industry laboratories - The black coated bath surface provides best contrast to identify sections and easy to clean 	<ul style="list-style-type: none"> - Location\11F36 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\25 students - No. of instrument in the lab\4 - Instrument status\Good
9	MST Slide Warming unit		<ul style="list-style-type: none"> - Scratch resistant black working surface is easy to clean - Heating capacity 300W - Integrated overheat security - Digital temperature display 	<ul style="list-style-type: none"> - Location\11F36 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\25 students - No. of instrument in the lab\4 - Instrument status\Good

10	GFL Tissue Float Bath		<ul style="list-style-type: none"> - This special bath is preferably used for stretching and drying cut tissues in histological, pathological, chemical, clinical and bacteriological laboratories. - Very good temperature constancy of ± 0.5 °C. - Exact temperature control guarantees evenly stretched cut tissues which are clearly visible in the bath. 	<ul style="list-style-type: none"> - Location\11F36 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\25 students - No. of instrument in the lab\4 - Instrument status\Good
11	The Leica HI1210		<ul style="list-style-type: none"> - Water bath with a surface that provides high thermal conductivity rates and outstanding scratch resistance due to its special plastic coating. - Temperatures can be selected between ambient and 75°C. To increase safety and reliability the Leica HI1210 features an overheating protection system along with a stand-by mode 	<ul style="list-style-type: none"> - Location\11F36 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\25 students - No. of instrument in the lab\3 - Instrument status\Good
12	Medite Tissue Floatation Bath TFB 35		<ul style="list-style-type: none"> - The tissue flotation bath TFB 35 provides a rectangular water bath with removable glass tray. 	<ul style="list-style-type: none"> - Location\11F36 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\25 students - No. of instrument in the lab\3 - Instrument status\Good

13	Thermo Scientific™ HistoStar		- Embed routine tissue samples into paraffin blocks for microtome sectioning comfortably and efficiently with the Thermo Scientific™ HistoStar™ Embedding Workstation.	- Location\11F36 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good
14	OLYMPUS CX31		- Optical system- UIS (Universal Infinity System) optical system Illuminator built in. -6V 30W halogen bulb (PHILIPS 5761)	- Location\11F36 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\25 students - No. of instrument in the lab\7 - Instrument status\Good
15	OLYMPUS BX51		- Built-in 12 V 100 W light source - Light preset switch - LED voltage indicator - Focus- Stroke 25 mm - Fine stroke per rotation 100 µm	- Location\11F36 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good
16	Olympus DP25		-The Olympus DP25 is a 5 megapixel digital colour camera for microscopes that is ideal for fast and easy documentation, publication, and image analysis requirements when high resolution detail is essential.	- Location\11F36 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good

17	Optech Biostar Microscope		<ul style="list-style-type: none"> - It starts with a basic equipment with eyepiece WF 10x with indication - Par focal achromatic objectives 4x / 0,10,10x NA / NA 0.25, 40x / NA 0.65, 100x / NA 1.25 with oil immersion retractable. 	<ul style="list-style-type: none"> - Location\11F36 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\25 students - No. of instrument in the lab\5 - Instrument status\Good
18	Thermo Scientific™ Cimarec™ Digital Stirring Hotplates		<ul style="list-style-type: none"> - Carry out general heating applications with Cimarec Digital Stirring Hotplates, which deliver precise stirring control, - Exceptional safety/ temperature performance 	<ul style="list-style-type: none"> - Location\11F36 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good
19	Fisher Thermix Stirring Hot Plate Model 310T		<ul style="list-style-type: none"> - Fisher Thermix Stirring Hot Plate Model 310T - Volts 115 - HZ60 	<ul style="list-style-type: none"> - Location\11F36 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\25 students - No. of instrument in the lab\3 - Instrument status\Good
20	Mettler Toledo® - JB1603-C/A-F - Carat Scale		<ul style="list-style-type: none"> - Automated Balance device - Fully automatic internal adjustment (FACT) Vibration adapter with Metal housing - Various weighing units can be displayed 	<ul style="list-style-type: none"> - Location\11F36 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good



21	STRETCHING HOT PLATE		<ul style="list-style-type: none"> - Dimensions (W/D/H): 150 x 400 x 80 mm - Temperature: 30 - 99 °C - Weight: 3,5 kg - Power Supply: 115/230 V / 50/60 Hz / 300 VA 	<ul style="list-style-type: none"> - Location\11F36 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good
22	SHANDON HISTO CENTER		<ul style="list-style-type: none"> - Cold plate: factory set at about 10°C, can store some 60 blocs when using standard histology molds/cassettes - Hotplate: adjustable from ambient temperature up to some 80°C - 90°C - Paraffin tank: > 5l, temperature adjustable between 45°C - 75°C - Paraffin dispenser: wax flow rate adjustable with the black dispenser jet 	<ul style="list-style-type: none"> - Location\11F36 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good
23	SUPREME AIR FUME HOODS		<p>Air fume hoods are used in laboratories to capture and remove hazardous airborne contaminants such as gases, vapors, aerosols, and dust from the work area, protecting users from exposure and preventing the spread of these substances into the general lab air.</p>	<ul style="list-style-type: none"> - Location\11F36 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\25 students - No. of instrument in the lab\2 - Instrument status\Good




24	GFL 2004 Water Distiller		- Provide Pure water	<ul style="list-style-type: none"> - Location\11F33 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\5 students - No. of instrument in the lab\1 - Instrument status\Good
25	Refrigerator		- 4C used to store biological samples and kits	<ul style="list-style-type: none"> - Location\11F33 - Courses\ Bachelor - Uses of the instrument\ Education-Research - Lab capacity\5 students - No. of instrument in the lab\1 - Instrument status\Good




4\ Cytogenetic & IVF Lab (67)

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No.	Device	Picture	Description and applications	Instrument Information
1	Sanyo co2 incubator		<ul style="list-style-type: none"> - The Incubator is designed to provide optimum conditions for cell growth. - The CO2 concentration is tightly controlled using a Humidity Protected CO2 Sensor. Rapid recovery of CO2 is ensured upon door opening and closing. 	<ul style="list-style-type: none"> - Location\11F67 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\15 students - No. of instrument in the lab\1 - Instrument status\Good
2	Sanyo Model MIR162 Incubator		<ul style="list-style-type: none"> - The incubator is suitable for a wide range of applications that require a temperature range of ambient (+5°C up to +80°C) - The MIR-Series incorporates an 8-bit microprocessor controller for heat and refrigeration control $\pm 0.2^{\circ}\text{C}$. 	<ul style="list-style-type: none"> - Location\11F67 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\15 students - No. of instrument in the lab\1 - Instrument status\Good

3	Compact Centrifuge		<ul style="list-style-type: none"> - Max. Speed: 6000 rpm Max. - RCF: 4427 xg - Max. Volume: 6 x 50 ml - Speed range: 200 - 6000 rpm with 50 acceleration and 10 deceleration rates 	<ul style="list-style-type: none"> - Location\11F67 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\15 students - No. of instrument in the lab\1 - Instrument status\Good
4	Mettler Toledo™ Analytical Balances		<ul style="list-style-type: none"> - Weighing chemicals and other compounds; to prepare desired concentration solutions 	<ul style="list-style-type: none"> - Location\11F67 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\15 students - No. of instrument in the lab\2 - Instrument status\Good
5	Thermotron Cytogenetic Drying Chamber CDS-5		<ul style="list-style-type: none"> - The CDS-5 was specifically designed for conducting Cytogenetic slide drying tests during harvest of in situ and non-in situ grown cultures. - The CDS-5 provides the optimum controlled temperature and humidity environment, required to achieve ideal chromosome spreading results 	<ul style="list-style-type: none"> - Location\11F67 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\15 students - No. of instrument in the lab\1 - Instrument status\Good

6	Automated Cell Counter, Invitrogen		<ul style="list-style-type: none"> - Is a benchtop counter designed to measure cell count and viability (live, dead, and total cells) accurately and precisely, using the standard trypan blue technique. - The Countess™ automated cell counter takes less than a minute per sample for a typical cell count and is compatible with a wide variety of eukaryotic cells and provides information on cell size. 	<ul style="list-style-type: none"> - Location\11F67 - Courses\ Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\15 students - No. of instrument in the lab\1 - Instrument status\Good
7	Inverted Microscope		<ul style="list-style-type: none"> -Working with live cells involves providing some sort of medium to facilitate the growth of these cells. Whether this involves petri dishes or some other vessels, this (tissue culture cell microscope) that will accommodate them 	<ul style="list-style-type: none"> - Location\11F67 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Research - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good
8	Labconco Purifier Laminar Air Flow Hood		<ul style="list-style-type: none"> - Is a carefully enclosed bench designed to prevent contamination of semiconductor wafers, biological samples, or any particle sensitive materials. - Air is drawn through a HEPA filter and blown in a very smooth, laminar flow towards the user. 	<ul style="list-style-type: none"> - Location\11F67 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\15 students - No. of instrument in the lab\1 - Instrument status\Good

9	SUPREME AIR FUME HOODS		Air fume hoods are used in laboratories to capture and remove hazardous airborne contaminants such as gases, vapors, aerosols, and dust from the work area, protecting users from exposure and preventing the spread of these substances into the general lab air.	<ul style="list-style-type: none"> - Location\11F67 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\15 students - No. of instrument in the lab\1 - Instrument status\Good
10	Deep freezer (Cryopride)		- Ultra low freezer is used to store biological samples up to -80 C	<ul style="list-style-type: none"> - Location\11F67 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Research - Lab capacity\15 students - No. of instrument in the lab\1 - Instrument status\under maintenance
11	Deep freezer Thermoscientific		- Ultra low freezer is used to store biological samples and kits up to -30 C	<ul style="list-style-type: none"> - Location\11F67 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Research - Lab capacity\20 students - No. of instrument in the lab\1 - Instrument status\Good



12	Deep freezer sanyo		- Ultra low freezer is used to store biological samples and kits up to -20 C	- Location\11F67 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Research - Lab capacity\20 students - No. of instrument in the lab\1 - Instrument status\Good
13	Refrigerator		- 4C used to store biological samples and kits	- Location\11F67 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Research - Lab capacity\20 students - No. of instrument in the lab\2 - Instrument status\Good
14	Shaker, GFL		- A <i>shaker</i> contains an oscillating board which is used to place the flasks, beakers, test tubes, etc. It is used to mix, blend, or to agitate substances in tube(s) or flask(s) by shaking them, and is vastly used in the fields of microbiology	- Location\11F67 - Courses\ Master-PhD - Uses of the instrument\ Research - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good




15	Light microscope		<p>- The CX21 is an economically priced Olympus microscope that achieves a high standard of optical and mechanical quality for educational applications.</p>	<p>- Location\11F67 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\20 students - No. of instrument in the lab\10 - Instrument status\Good</p>
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5\ Molecular Research Lab (61)


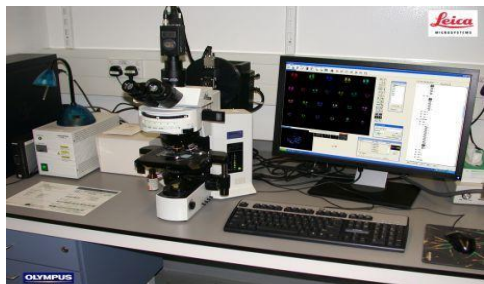

Responsible Person \ Kareema Alsemail



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No.	Device	Picture	Description and applications	Instrument Information
1	GeneAmp® PCR System 9700		<ul style="list-style-type: none"> - GeneAmp® PCR System 9700 is specifically designed for the amplification of nucleic acids - This GeneAmp® PCR System 9700 consists of a base module and the 96-Well Gold-Plated Silver Sample Block module. - The 96-well GeneAmp® PCR System 9700 is designed for use with 0.2 ml reaction tubes or 96well reaction plates for all of your routine PCR applications 	<ul style="list-style-type: none"> - Location\11F61 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\20 students - No. of instrument in the lab\1 - Instrument status\Good
2	Microwave oven		<ul style="list-style-type: none"> - Microwave oven is used to melt agarose gel to prepare for electrophoresis run. 	<ul style="list-style-type: none"> - Location\11F61 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\20 students - No. of instrument in the lab\2 - Instrument status\Good

3	Fluorescent microscope CX-41, Olympus		- Fluorescent microscope is used to visualize bacteria , yeast ,eukaryotic cells by fluorescence technique. In the life sciences fluorescence microscopy is a powerful tool which allows the specific and sensitive staining of a specimen in order to detect the distribution of proteins or other molecules of interest	- Location\11F61 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\20 students - No. of instrument in the lab\2 - Instrument status\Good
4	Mettler Toledo™ Analytical Balances		-Weighing chemicals and other compounds; to prepare desired concentration solutions.	- Location\11F61 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\20 students - No. of instrument in the lab\1 - Instrument status\Good
5	Rotor gene-PCR (Quagen)		- Amplification of DNA; useful in Molecular Biology and Forensic laboratories	- Location\11F61 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\20 students - No. of instrument in the lab\1 - Instrument status\Good

6	Gel Documentation Or Gel Imager, BIORAD		- Gel imaging systems is used for detecting and imaging fluorescence, chemiluminescence, stain-free and colorimetric blots and gels.	- Location\11F61 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\20 students - No. of instrument in the lab\1 - Instrument status\Good
7	CFX connect, Polymerase Chain Reaction (PCR) BIORAD		- Polymerase chain reaction or PCR , is a technique to make many copies of a specific DNA <i>region</i> in vitro. - used for DNA amplification	- Location\11F61 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\20 students - No. of instrument in the lab\1 - Instrument status\Good
8	Gel Electrophoresis (Horizontal) BIORAD		-Gel electrophoresis is a method for separation and analysis of macromolecules (DNA, RNA and proteins) and their fragments, based on their size and charge.	- Location\11F61 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\20 students - No. of instrument in the lab\2 - Instrument status\Good

9	SUPREME AIR FUME HOODS		Air fume hoods are used in laboratories to capture and remove hazardous airborne contaminants such as gases, vapors, aerosols, and dust from the work area, protecting users from exposure and preventing the spread of these substances into the general lab air.	<ul style="list-style-type: none"> - Location\11F61 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Education-Research - Lab capacity\20 students - No. of instrument in the lab\1 - Instrument status\Good
10	Cytovision microscope		<ul style="list-style-type: none"> - CytoVision is scalable from standalone capture stations for karyotyping and FISH, to fully automated unattended metaphase and cellular FISH capture of up to 120 slides - Flexible software modules provide the platform for every cytogenetics and FISH laboratory . 	<ul style="list-style-type: none"> - Location\11F61 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Research - Lab capacity\20 students - No. of instrument in the lab\1 - Instrument status\Good
11	ELISA SFRI		- ELISA (enzyme-linked immunosorbent assay) is a plate-based assay technique designed for detecting and quantifying substances such as peptides, proteins, antibodies and hormones.	<ul style="list-style-type: none"> - Location\11F61 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Research - Lab capacity\20 students - No. of instrument in the lab\1 - Instrument status\Good



12	Labconco Purifier Laminar Air Flow Hood		<ul style="list-style-type: none"> - Is a carefully enclosed bench designed to prevent contamination of semiconductor wafers, biological samples, or any particle sensitive materials. - Air is drawn through a HEPA filter and blown in a very smooth, laminar flow towards the user. - Due to the direction of air flow, the sample is protected from the user but the user is not protected from the sample - The cabinet is usually made of stainless steel with no gaps or joints where spores might collect. 	<ul style="list-style-type: none"> - Location\11F61 - Courses\ Bachelor-Master - Uses of the instrument\ Education-Research - Lab capacity\20 students - No. of instrument in the lab\1 - Instrument status\Good
13	Water Purification (Deionizer), Thermoscientific Milli Q		<p>Water deionization requires the passage of water through ion exchange resins to produce ion free water.</p> <ul style="list-style-type: none"> - It is useful to get deionized water for use in molecular genetics/biochemical analysis. 	<ul style="list-style-type: none"> - Location\11F61 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Research - Lab capacity\20 students - No. of instrument in the lab\1 - Instrument status\Good



14	Deep freezer Thermoscientific		- Ultra low freezer is used to store biological samples up to -30 C	- Location\11F61 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Research - Lab capacity\20 students - No. of instrument in the lab\2 - Instrument status\Good
15	Refrigerator		- 4C used to store biological samples and kits	- Location\11F61 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Research - Lab capacity\20 students - No. of instrument in the lab\1 - Instrument status\Good

6\ Pathology Lab (31)

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No.	Device	Picture	Description and applications	Instrument Information
1	ThinPrep 2000		- The Thin Prep 2000 can be used for non-gynecological specimens such as for the diagnosis of cancers of the lung, bladder, and gastrointestinal tract, and in the preparation of fine needle aspiration of the thyroid and breast.	- Location\11F31 - Courses\ Bachelor - Uses of the instrument\ Education - Lab capacity\20 students - No. of instrument in the lab\1 - Instrument status\Good
2	Light microscope		- The CX21 is an economically priced Olympus microscope that achieves a high standard of optical and mechanical quality for educational applications.	- Location\11F31 - Courses\ Bachelor - Uses of the instrument\ Education - Lab capacity\20 students - No. of instrument in the lab\18 - Instrument status\Good



3	SUPREME AIR FUME HOODS		Air fume hoods are used in laboratories to capture and remove hazardous airborne contaminants such as gases, vapors, aerosols, and dust from the work area, protecting users from exposure and preventing the spread of these substances into the general lab air.	<ul style="list-style-type: none"> - Location\11F31 - Courses\ Bachelor - Uses of the instrument\ Education - Lab capacity\20 students - No. of instrument in the lab\1 - Instrument status\Good
4	Water Purification (Deionizer), Thermoscientific Milli Q		<p>Water deionization requires the passage of water through ion exchange resins to produce ion free water.</p> <ul style="list-style-type: none"> - It is useful to get deionized water for use in molecular genetics/biochemical analysis. 	<ul style="list-style-type: none"> - Location\11F31 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Research - Lab capacity\20 students - No. of instrument in the lab\1 - Instrument status\Good




7\ Microbiology Labs (22-75-74)



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No.	Device	Picture	Description and applications	Instrument Information
1	Light Microscope, Olympus.		<ul style="list-style-type: none"> - Magnification of objects on slides 4X, 10X, 40X, and 100X. -Applications: 1\ Biological samples. 2\Cell Morphology. 3\Cell photography. 	<ul style="list-style-type: none"> - Location\11F75-11F74-11F22 - Courses\ Bachelor - Uses of the instrument\ Education - Lab capacity\25 students - No. of instrument in the lab\74 - Instrument status\Good
2	Phase contrast microscope, Olympus		<ul style="list-style-type: none"> - Designed for: 1\Teaching, demonstration 2\Clinical examination 3\Research purpose 	<ul style="list-style-type: none"> - Location\11F74 - Courses\ Bachelor - Uses of the instrument\ Education - Lab capacity\25 students - No. of instrument in the lab\2 - Instrument status\Good

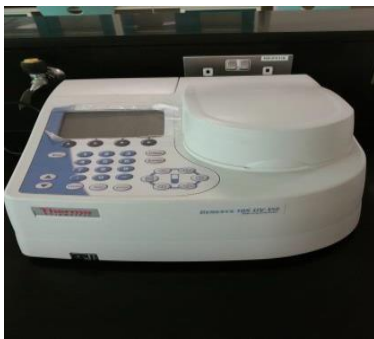

3	Drying oven, Sanyo.		<ul style="list-style-type: none"> - Enabling simple glassware drying to the most complex controlled heating applications. - Heating and drying oven portfolio allows for stability and reproducibility for the desired application needs. 	<ul style="list-style-type: none"> - Location\11F75-11F74-11F22 - Courses\ Bachelor - Uses of the instrument\ Education - Lab capacity\25 students - No. of instrument in the lab\3 - Instrument status\Good
4	IN450 incubator, Memmert		<ul style="list-style-type: none"> - Ideal for all applications that require reliable and safe temperatures up to +70°C, specifically for incubating living cultures at +37 °C. 	<ul style="list-style-type: none"> - Location\11F75-11F74-11F22 - Courses\ Bachelor - Uses of the instrument\ Education - Lab capacity\25 students - No. of instrument in the lab\3 - Instrument status\Good
5	Digital Ceramic Hot Plate Stirrer, with Timer - AREC.T		<ul style="list-style-type: none"> - To stir volumes up to 15 liters (H2O) at very high speeds. 	<ul style="list-style-type: none"> - Location\11F75-11F74-11F22 - Courses\ Bachelor - Uses of the instrument\ Education - Lab capacity\25 students - No. of instrument in the lab\4 - Instrument status\Good


6	Dissecting Microscope.		<ul style="list-style-type: none"> - They are the only microscopes that can produce three dimensional images and have a small magnification. - This prevents the user from seeing highly detailed images, but allows larger portions of the object to be viewed. - Used to see the organs of an insect, for the inspection of flat shiny surfaces and in biological applications to make any surgical biopsies. 	<ul style="list-style-type: none"> - Location\11F74-11F22 - Courses\ Bachelor - Uses of the instrument\ Education - Lab capacity\25 students - No. of instrument in the lab\3 - Instrument status\Good
7	Inverted Microscope		<ul style="list-style-type: none"> -This type of microscope is suitable for viewing culture vessels such as Petri dishes. 	<ul style="list-style-type: none"> - Location\11F75-11F22 - Courses\ Bachelor - Uses of the instrument\ Education - Lab capacity\25 students - No. of instrument in the lab\2 - Instrument status\Good
8	Weighing balance, Mettler Toledo.		<ul style="list-style-type: none"> -Ideal for advanced weighing applications, such as parts counting, check weighing, totalizing or filling 	<ul style="list-style-type: none"> - Location\11F75-11F74 - Courses\ Bachelor - Uses of the instrument\ Education - Lab capacity\25 students - No. of instrument in the lab\2 - Instrument status\Good

9	Water path, GFL		<ul style="list-style-type: none"> -To heat the samples with steam water - Set from 25 up to 100 C 	<ul style="list-style-type: none"> - Location\11F74-11F22 - Courses\ Bachelor - Uses of the instrument\ Education - Lab capacity\25 students - No. of instrument in the lab\3 - Instrument status\Good
10	Colony Counter, Gallenkamp		<ul style="list-style-type: none"> -For Rapid, manual counting of colonies in microbiology lab 	<ul style="list-style-type: none"> - Location\11F74 - Courses\ Bachelor - Uses of the instrument\ Education - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good
11	Slide Warmer XH-2001, Premiere		<ul style="list-style-type: none"> - Ideal for use in the fields of cytology, histology, pathology, and biology for paraffin tissue section mounting. - Thermal heater ensures even heat transfer 	<ul style="list-style-type: none"> - Location\11F75-11F74-11F22 - Courses\ Bachelor - Uses of the instrument\ Education - Lab capacity\25 students - No. of instrument in the lab\3 - Instrument status\Good

12	Bacti-Cinerator™ IV Sterilizer, McCormick		<ul style="list-style-type: none"> - Safely sterilizes loops and needles by infrared heat 	<ul style="list-style-type: none"> - Location\11F74-11F22-11F75 - Courses\ Bachelor - Uses of the instrument\ Education - Lab capacity\25 students - No. of instrument in the lab\17 - Instrument status\Good
13	Labconco Purifier Laminar Air Flow Hood		<ul style="list-style-type: none"> - Is a carefully enclosed bench designed to prevent contamination of semiconductor wafers, biological samples, or any particle sensitive materials. - Air is drawn through a HEPA filter and blown in a very smooth, laminar flow towards the user. - Due to the direction of air flow, the sample is protected from the user but the user is not protected from the sample - The cabinet is usually made of stainless steel with no gaps or joints where spores might collect. 	<ul style="list-style-type: none"> - Location\11F75-74-22 - Courses\ Bachelor - Uses of the instrument\ Education - Lab capacity\25 students - No. of instrument in the lab\6 - Instrument status\Good

14	Refrigerator		<ul style="list-style-type: none"> - 4C used to store biological samples and kits 	<ul style="list-style-type: none"> - Location\11F74-11F75-11F22 - Courses\ Bachelor - Uses of the instrument\ Education - Lab capacity\25 students - No. of instrument in the lab\8 - Instrument status\Good
10	Luminex- Milliplex Millipore		<ul style="list-style-type: none"> - Immunoassays based on Luminex MAP (multi-analyte profiling) technology enable simultaneous detection and quantitation of multiple secreted proteins (cytokines, chemokines, growth factors, etc.). - For the comprehensive study of biological systems. 	<ul style="list-style-type: none"> - Location\11F22 - Courses\ Master-PhD - Uses of the instrument\ Research - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good



13	UV-Visible Spectrophotometer, Thermoscientific		- Qualitative and quantitative estimation of biomolecules like DNA, proteins, sugars etc.	- Location\11F22 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Research - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good
33	BACTEC –Blood cell culture		- BACTEC blood culture system is a fully automated microbiology growth and detection system designed to detect microbial growth from blood specimens	- Location\11F22 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Research - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good



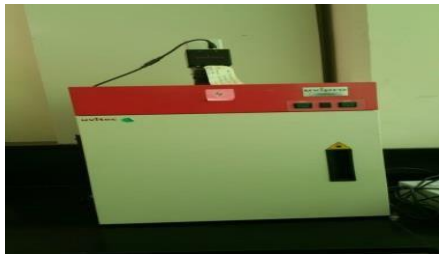
44	Freeze dryer (Lyophiliser) Alpha 1-2 christ		- Freeze Dryer is a lyophilisation technique for preserving samples or increasing the shelf life. It also is used in preparation of dry cells /tissues in microscopy or flame photometry.	- Location\11F22 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Research - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good
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7\ Electron Microscopy Lab (45)

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No.	Device	Picture	Description and applications	Instrument Information
1	JEM-2100F Transmission Electron Microscope		<ul style="list-style-type: none"> - The JEM-2100F has been developed to achieve the highest image quality and the highest analytical performance in the 200kV class analytical TEM with a probe size under 0.5nm. - The new side-entry goniometer stage provides ease of use tilt, rotation, heating and cooling 	<ul style="list-style-type: none"> - Location\11F45 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Research - Lab capacity\12 students - No. of instrument in the lab\1 - Instrument status\Under maintenance
2	Reichert-Jung Ultra cut E Ultra microtome		<p>-The Reichert-Jung ultra-cut ultramicrotome has the following specifications:</p> <ol style="list-style-type: none"> 1\ Micro Specimen Thickness Range 0 to 0.5 microns 2\ Ultra Specimen Thickness Range 0 to 0.14 microns 3\ Motorized Cutting Stroke with Adjustable Speed 0.1 to 90 mm/sec. 4\ Sectioning Window Adjustable 0.5 to 22mm Manual Sectioning 5\ Possible with Built In Hand wheel 	<ul style="list-style-type: none"> - Location\11F45 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Research - Lab capacity\12 students - No. of instrument in the lab\1 - Instrument status\Good

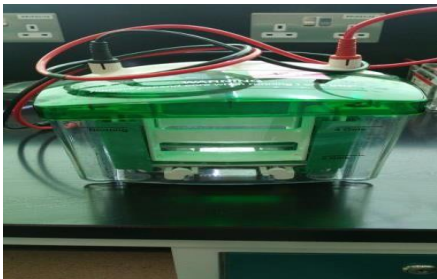


3	Microtome knife sharpener type MMS		<ul style="list-style-type: none"> - Variable honing programs by means of: 2 honing compounds -2 honing surfaces (coarse + fine) - Variable speed, selectable - Time clock up to 120 minutes - Height adjustment for better sharpening result 	<ul style="list-style-type: none"> - Location\11F45 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Research - Lab capacity\12 students - No. of instrument in the lab\1 - Instrument status\Good
4	Refrigerator		<ul style="list-style-type: none"> - 4C used to store biological samples and kits 	<ul style="list-style-type: none"> - Location\11F45 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Research - Lab capacity\12 students - No. of instrument in the lab\1 - Instrument status\Good
5	Gel Documentation Or Gel Imager, ipro silver		<ul style="list-style-type: none"> - Gel imaging systems is used for detecting and imaging fluorescence, chemiluminescence, stain-free and colorimetric blots and gels 	<ul style="list-style-type: none"> - Location\11F45 - Courses\ Bachelor-Master-PhD - Uses of the instrument\ Research - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good




8\ Microbiology Research Lab (27)

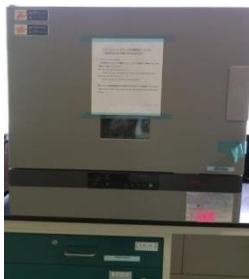


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No.	Device	Picture	Description and applications	Instrument Information
1	Polymerase Chain Reaction(PCR), Gene Amp9700, Applied Bio system		- Polymerase chain reaction or PCR , is a technique used to make many copies of a specific DNA region <i>in vitro</i> .	- Location\11F27 - Courses\ Master-PhD - Uses of the instrument\ Research - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good
2	Gel Electrophoresis (Horizontal) BIORAD		- Gel electrophoresis is a method for separation and analysis of macromolecules (DNA, RNA and proteins) and their fragments, based on their size and charge.	- Location\11F27 - Courses\ Master-PhD - Uses of the instrument\ Research - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good




3	Gel Electrophoresis (Vertical) BIORAD		<p>- Gel electrophoresis is a method for separation and analysis of macromolecules (DNA, RNA and proteins) and their fragments, based on their size and charge.</p>	<p>- Location\11F27 - Courses\ Master-PhD - Uses of the instrument\ Research - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good</p>
4	Titre Plate Shaker Thermoscientific		<p>- It is used for mixing the contents of the wells in Microtitre plate. - Used in combination with ELISA and for Multiplex readers.</p>	<p>- Location\27 - Courses\ Master-PhD - Uses of the instrument\ Research - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good</p>
5	UV-Visible Spectrophotometer, Jenway 6300		<p>- Qualitative and quantitative estimation of biomolecules like DNA, proteins, sugars etc.</p>	<p>- Location\11F27 - Courses\ Master-PhD - Uses of the instrument\ Research - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good</p>



6	Electronic Balance		- Weighing chemicals and other compounds; to prepare desired concentration solutions	- Location\11F27 - Courses\ Master-PhD - Uses of the instrument\ Research - Lab capacity\25 students - No. of instrument in the lab\2 - Instrument status\Good
7	pH meter Thermoscientific		- pH meter are used to measure the pH of the solution.	- Location\11F27 - Courses\ Master-PhD - Uses of the instrument\ Research - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good
8	Co2 incubator, Sanyo connected with Co2 Slender		- CO ₂ incubators are necessary equipment for research and clinical laboratories conducting cell culture and tissue culture work. CO ₂ incubators can be used for routine applications such as cell cultivation or for specific protocols such as IVF and stem cell applications	- Location\11F27 - Courses\ Master-PhD - Uses of the instrument\ Research - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good

9	Hot Air Oven, Sanyo		- Hot air ovens are electrical devices which use dry heat to sterilize. Useful in sterilization of glassware	- Location\11F27 - Courses\ Master-PhD - Uses of the instrument\ Research - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good
10	Hot plates, IKA-C-MAG MS7&Fisher		- Used in melting and preparation of gels	- Location\11F27 - Courses\ Master-PhD - Uses of the instrument\ Research - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good
11	Shaking Incubator		Incubator Shaker is a combination of incubator and a shaker. It has an ability to shake, while maintain optimal conditions for incubating microbes or cell cultures.	- Location\11F27 - Courses\ Master-PhD - Uses of the instrument\ Research - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good




12	Bench top Autoclave (LINA)		- Lina Autoclave is a small sterilizer, which is uniquely designed to aid medical practitioners. The equipment offers exclusive type B cycles that are perfectly suitable for sterilizing all ranges of surgical and dental products.	- Location\11F27 - Courses\ Master-PhD - Uses of the instrument\ Research - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good
13	Loop Incinerator		- Sterilization of Bacterial loops for inoculation, transfer and culture of microorganisms on media.	- Location\11F27 - Courses\ Master-PhD - Uses of the instrument\ Research - Lab capacity\25 students - No. of instrument in the lab\3 - Instrument status\Good
14	Microwave, Daewoo		- Microwave is useful in Molecular biology lab for melting and preparation of gels.	- Location\11F27 - Courses\ Master-PhD - Uses of the instrument\ Research - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good


15	Centrifuge (Hettich) Universal 320R		- Separation of serum, proteins, DNA and cell debris. Used in the purification steps in molecular biology, cell biology and other life sciences.	- Location\11F27 - Courses\ Master-PhD - Uses of the instrument\ Research - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good
16	Vertex shaker-VELP		- Vortex Shaker is usually a small device used to shake, or mix small vials of liquid substance	- Location\11F27 - Courses\ Master-PhD - Uses of the instrument\ Research - Lab capacity\25 students - No. of instrument in the lab\2 - Instrument status\Good
17	Magnetic stirrer, minimagmix		- Magnetic stirrers are very common in experimental chemistry and biology. They are used to mix components (solids and liquids) to get homogeneous liquid mixtures. Common examples include bacterial growth media and buffer solutions.	- Location\11F27 - Courses\ Master-PhD - Uses of the instrument\ Research - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good

18	Dry Bath		- Dry bath is a type of laboratory equipment that is used to heat samples. Dry baths are often used in molecular biology, microbiology, biochemistry and genetic applications	- Location\11F27 - Courses\ Master-PhD - Uses of the instrument\ Research - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good
19	Water bath (Mettler)		- Water bath is used for providing required temperature for incubation of biological samples. It also provide boiling water when maintained at 100° C	- Location\11F2 - Courses\ Master-PhD - Uses of the instrument\ Research - Lab capacity\25 students - No. of instrument in the lab\2 - Instrument status\Good
20	Biological safety cabinet		- Provide a sterile environment needed for the culturing of mammalian/bacterial cells	- Location\11F2 - Courses\ Master-PhD - Uses of the instrument\ Research - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good

21	Light Microscope, Olympus.		<ul style="list-style-type: none"> - Magnification of objects on slides 4X, 10X, 40X, and 100X. -Applications: <ul style="list-style-type: none"> 1\Biological samples. 2\ Cell Morphology. 3\ Cell photography. 	<ul style="list-style-type: none"> - Location\11F27 - Courses\ Master-PhD - Uses of the instrument\ Research - Lab capacity\25 students - No. of instrument in the lab\4 - Instrument status\Good
22	Centrifuge 5418 R		<ul style="list-style-type: none"> - 18-place capacity centrifuges for molecular biology that are specifically designed for low to medium capacity in 1.5/2.0 mL tubes and Microtainer. - Their speed of up to $16,873 \times g$ allows for standard molecular biology applications. 	<ul style="list-style-type: none"> - Location\11F27 - Courses\ Master-PhD - Uses of the instrument\ Research - Lab capacity\25 students - No. of instrument in the lab\1 - Instrument status\Good

23	Qubit Fluorometer - Invitrogen		<p>-The Qubit fluorometer uses fluorescent dyes to determine the concentration of either nucleic acids or proteins in a sample</p> <p>-Qubit system is supplied with fluorescent dyes that bind specifically to analytes of interest such as double-stranded DNA (dsDNA), single-stranded DNA (ssDNA), RNA, miRNA or protein providing more accurate quantification.</p>	<p>- Location\11F27</p> <p>- Courses\ Master-PhD</p> <p>- Uses of the instrument\ Education-Research</p> <p>- Lab capacity\20 students</p> <p>- No. of instrument in the lab\1</p> <p>- Instrument status\Good</p>
24	Labconco Purifier Laminar Air Flow Hood		<p>- Is a carefully enclosed bench designed to prevent contamination of semiconductor wafers, biological samples, or any particle sensitive materials.</p> <p>- Air is drawn through a HEPA filter and blown in a very smooth, laminar flow towards the user.</p> <p>- Due to the direction of air flow, the sample is protected from the user but the user is not protected from the sample</p> <p>- The cabinet is usually made of stainless steel with no gaps or joints where spores might collect.</p>	<p>- Location\11F27</p> <p>- Courses\ Master-PhD</p> <p>- Uses of the instrument\ Research</p> <p>- Lab capacity\20 students</p> <p>- No. of instrument in the lab\3</p> <p>- Instrument status\Good</p>


25	Deep freezer sanyo		- Ultra low freezer is used to store biological samples and kits up to -30 C	- Location\11F27 - Courses\ Master-PhD - Uses of the instrument\ Research - Lab capacity\20 students - No. of instrument in the lab\1 - Instrument status\Good
26	Refrigerator		- 4C used to store biological samples and kits	- Location\11F27 - Courses\ Master-PhD - Uses of the instrument\ Research - Lab capacity\20 students - No. of instrument in the lab\2 - Instrument status\Good
27	SIDRA Instrument		-Ultraviolet sterilizers are often used to help control unwanted microorganisms in aquaria and ponds. UV irradiation ensures that pathogens cannot reproduce, thus decreasing the likelihood of a disease outbreak in an aquarium	- Location\11F27 - Courses\ Master-PhD - Uses of the instrument\ Research - Lab capacity\20 students - No. of instrument in the lab\1 - Instrument status\Good

28	OLYMPIC Sterile-Drier		<ul style="list-style-type: none"> - Olympic Sterile-Driers use HEPA-filtered air to efficiently dry reusable medical devices while reducing the threat of airborne pathogens while drying. Forced recirculating vertical airflow allows for faster tube and parts drying. 	<ul style="list-style-type: none"> - Location\11F27 - Courses\ Master-PhD - Uses of the instrument\ Research - Lab capacity\20 students - No. of instrument in the lab\1 - Instrument status\Good
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9\ Sterilization Room (25)

Responsible Person \ Maryam Alshehri

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No.	Device	Picture	Description and applications	Instrument Information
1	Autoclaves		<p>- Autoclaves provide a physical method for disinfection and sterilization. They work with a combination of steam, pressure and time. Autoclaves operate at high temperature and pressure in order to kill microorganisms and spores.</p>	<p>- Location\11F27 - Courses\ Bachelor -Master-PhD - Uses of the instrument\ Education-Research - Instrument status\Good</p>

For More Information

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