

Subject Code: 1AS0010101

Subject: Medical Physics

Credits: 2

Teaching Scheme				Evaluation Scheme (Marks)				
Hours per week				Theory		Practical		Total (T+P)
L	T	P	Total	University Assessment	Continuous Assessment	University Assessment	Continuous Assessment	
2	0	0	2	60	40	-	-	100

Subject Content:

Sr. No.	Topic	Total Hours
1	Introduction to basics of physics	2
2	Mechanical waves, infrasound, acoustic sound; production of X rays	2
3	Radiography on plane film board	2
4	Digital radiography	2
5	Image quality	2
6	Mammography	2
7	Fluoroscopy	2
8	Computed tomography (CT)	2
9	Electromagnetic waves; non-ionizing and ionizing radiation, effect on human health; application in medicine; magnetic resonance imaging (MRI)	2
10	Ultrasound, basics of ultrasonography	2
11	Radiation protection and radiobiology	2
12	Hydrostatics, Hydrodynamics; Biophysics of cardiovascular system	2
13	Aerodynamics; biophysics of respiratory system	2

Subject Code:1AS0010102

Subject: Medical Chemistry

Credits: 3

Teaching Scheme				Evaluation Scheme (Marks)				
Hours per week				Theory		Practical		Total (T+P)
L	T	P	Total	University Assessment	Continuous Assessment	University Assessment	Continuous Assessment	
3	0	0	3	60	40	-	-	100

Subject Content:

Sr. No.	Topic	Total Hours
1	The electronic structure of Atoms; The dual nature of the electron; Quantum mechanical description of the hydrogen atom; quantum numbers; Atomic orbitals; Electron configuration; The shielding effect in many-electron atoms. to basics of physics	1
2	The principal quantum number; The angular momentum quantum number; The magnetic quantum number; The electron spin quantum number; s-,p-,d-,f- orbitals; The energies of orbitals; The Pauli exclusive principle; Hund's rule	1
3	Development of the periodic table; periodic classification of the elements; Periodic variation in physical proportion; Ionization energy; Electron affinity; General trends in chemical properties.	1
4	Electron configuration of cations and anions; Effective nuclear charge; Atomic radius; Ionic radius; Electron configuration of cations and anions; Periodic classification of the electrons; Periodic variation in properties.	1
5	Lewis dot symbols; The ionic bond; The covalent bond; Lattice energy of ionic compounds; Electronegativity; Concept of resonance.	1
6	Electronegativity and oxidation number; Writing Lewis structure; Formal charge and Lewis structure; The octet rule; The incomplete octet; The expanded octet.	1
7	Molecular geometry; Geometry of molecules with one and more central atom; Valence-Shell electron – pair repulsion model (VSEPR); Dipole moments; Procedure for hybridizing atomic orbitals; The chemistry of coordination compounds; Geometry of coordination compounds.	1
8	Geometry of molecules with no lone pairs; Geometry of molecules with one and more lone pairs; Hybridization of s-, p- and d- orbitals; Naming coordination compounds; oxidation and coordination number of metals in coordination compounds; Coordination compounds in living	1

9	Alcohols; Classification of Alcohols; Nomenclature of Phenols; Hydrogen Bonding in Alcohols and Phenols; The Acidity of Alcohols and Phenols; The Basicity of Alcohols and Phenols; Dehydration of Alcohols to Alkenes; The Reaction of Alcohols with Hydrogen Halides; Oxidation of Alcohols to Aldehydes, Ketones and Carboxylic Acids; Nomenclature of Ethers; Physical Properties of Ethers as Solvents; Preparation of Ethers	1
10	Physical properties of solution; Classification of solution; A molecular view of the solution process; Quantitative study of solution; Types of concentration units; Effect of temperature on solubility; Effect of pressure on the solubility of gases; Colligative properties; Osmotic pressure of solution.	1
11	Concentration units; percent by mass; molarity and molality of solution; Effect of temperature on solubility of solids; Effect of temperature on solubility of gases; Henry's law; Vapor – pressure lowering; Raoult's law; Boiling – point elevation; Freezing – point depression; osmotic pressure of solution.	1
12	Bronsted acids and bases; The acid-base properties of water; pH- a measure of acidity; Strength of acids and bases; Weak acids and acid ionization constant; Weak bases and base ionization constant; The relationship between conjugate acid-base ionization constant; Molecular structure and the strength of acids; Acid-base properties of salts; Acidic, basic and amphoteric oxides; Lewis acids and bases; Buffer solution; The types of buffer solutions; Molar solubility and solubility; Complex ion equilibria and solubility.	1
13	Preparing a buffer solution with a specific pH; acidic, basic, amphoteric buffer solution; buffer solution in living.	1
14	Classes of Organic Compounds; The Structures of Alkanes; Nomenclature of Organic Compounds IUPAC Rules for Naming Alkanes; Alkyl and Halogen Substituents; Use of the IUPAC Rules; Physical Properties of Alkanes and Intermolecular Interactions Nonbonding; Conformations of Alkanes; Cycloalkane Nomenclature and Conformation; Cis-Trans Isomerism in Cycloalkanes; Reactions of Alkanes; Oxidation and Combustion; Alkanes as Fuels; Halogenation of Alkanes The Free-Radical Chain Mechanism of Halogenation;	1
15	Chirality and Enantiomers; Stereogenic Centers; the Stereogenic Carbon Atom; Configuration and the R-S Convention; Properties of Enantiomers; Fischer Projection Formulas; Compounds with More Than One Stereogenic Center; Diastereomers.	1
16	Unsaturated hydrocarbons; Definition and Classification; Nomenclature; The Orbital Model of a Double Bond; the Pi Bond; Cis-	1

	Trans Isomerism in Alkenes; Addition and Substitution Reactions Compared; Polar Addition Reactions; The Kekule Structure of Benzene; Resonance Model for Benzene; Orbital Model for Benzene; Nomenclature of Aromatic Compounds; The Resonance Energy of Benzene; Electrophilic Aromatic; Sulfonation; Alkylation and Acylation.	
17	Mechanism of Electrophilic Addition to Alkenes; Addition of Halogens; Addition of Water (Hydration); Addition of Acids; Addition of Unsymmetric Reagents to Unsymmetric Alkenes; Markovnikov's Rule; Ring-Activating and Ring-Deactivating Substituents; Ortho, Para-Directing and Meta-Directing Groups; Substituent Effects on Reactivity.	2
18	Alcohols; Classification of Alcohols; Nomenclature of Phenols; Hydrogen Bonding in Alcohols and Phenols; The Acidity of Alcohols and Phenols; The Basicity of Alcohols and Phenols; Dehydration of Alcohols to Alkenes; The Reaction of Alcohols with Hydrogen Halides; Oxidation of Alcohols to Aldehydes, Ketones and Carboxylic Acids; Nomenclature of Ethers; Physical Properties of Ethers as Solvents; Preparation of Ethers	1
19	Nucleophilic Substitution; Examples of Nucleophilic Substitutions; Nucleophilic Substitution Mechanisms; The SN2 Mechanism; The SN1 Mechanism; The SN1 and SN2 Mechanisms Compared; Dehydrohalogenation, an Elimination Reaction; the E2 and E1.	1
20	Nomenclature of Aldehydes and Ketones; Synthesis of Aldehydes and Ketones; The Carbonyl Group; Nucleophilic Addition to Carbonyl Groups; Addition of Alcohols: Formation of Hemiacetals and Acetals; Addition of Water; Hydration of Aldehydes and Ketones; Oxidation of Carbonyl Compounds; Nomenclature of Acids; Physical Properties of Acids; Acidity and Acidity Constants; Conversion of Acids to Salts; Fischer Esterification; The Mechanism of Acid-Catalyzed Esterification; Saponification of Esters	1
21	Keto-Enol Tautomerism; Acidity of α -Hydrogens; the Enolate Anion; The Aldol Condensation; The Mixed Aldol Condensation; Preparation of Acids: Oxidation of Primary Alcohols and Aldehydes; Carboxylic Acid Derivatives; Esters; Preparation of Esters.	1
22	Biologically active heterocyclic compounds; Containing one or two heteroatoms five member and six member heterocyclic; Their features and derivation; Notion about tetrapyrrolic compounds (porphyrine, hem, bilirubin, biliverdin)	1
23	Derivatives of pyrimidine: Cytosine, Uracil, Thymine; The bicycle heterocycles – Purine; Derivatives of Purine: Adenine, Guanine; Notions about structure and biological role.	1

24	Amino acids; Peptides; Proteins; Proteogenic amino acids structure; Nomenclature; Stereoisomery; Chemical features of amino acids and essential reactions in terms of biological properties; Peptides; Electronic and space structure of peptides group; Peptides hydrolysis and synthesis; Notions about protein structure and biological functions.	1
25	Essential amino acids; Acid-base properties of amino acids; Chemical properties of amino acids; Deamination reactions of amino acids; Transamination amino acids.	1
26	Carbohydrate; Definitions and Classification; Monosaccharides; Chirality in Monosaccharides; Fischer Projection Formulas and D,L-Sugars; The Cyclic Hemiacetal Structures of Monosaccharides; Anomeric Carbons; Mutarotation; Pyranose and Furanose Structures; Conformations of Pyranoses; Disaccharides; Maltose; Cellobiose; Lactose; Sucrose; Glycosidic bonds; Formation of glucosides from monosaccharides; Polysaccharides; Other Polysaccharides.	1
27	Reduction of Monosaccharides; Oxidation of Monosaccharides; Formation of Glycosides from Monosaccharides; Cyclo-oxo tautomerie; Homo and hetero polysaccharides; Starch and Glycogen; Hydrolysis; Sacharosis inversion.	1
28	Lipids; Natural fats as triglycerides mixture; Wax phospholipids; Lesithines and kefalines – cell membrane components; Plasmalogens; Ceramides; Sphingomyeline; Glaicolipids.	1
29	Fats and oils; Triesters of glycerol; Simple triglycerides and mixed triglycerides; Animal origin tryacil – gliceroles; Plant origin tryacil – gliceroles; Complex lipids; phospholipids; plasmalogens; glycolipids.	1
30	Nucleic Acids: Classification, Structure, and Construction.	1
31	Nucleosides, nucleosides, chemical reactions	1

Subject Code:1AS0010103

Subject: General Biochemistry

Credits: 4

Teaching Scheme				Evaluation Scheme (Marks)				
Hours per week				Theory		Practical		Total (T+P)
L	T	P	Total	University Assessment	Continuous Assessment	University Assessment	Continuous Assessment	
4	0	0	4	60	40	-	-	100

Subject Content:

Sr. No.	Topic	Total Hours
1	The subject of Biochemistry, historical ways of development, goals and tasks. The chemical composition of living organisms and shift of mineral substances. Bio elements, macro and microelements. Water, water ionization. Acids, bases and buffer system in living organism, their role	3
2	Amino acids, present in proteins. Classification of amino acids, stereo isomers. Essential amino acids. Functional role of proteins in human. Structural-functional organization of proteins. Diseases associated with the wrong structural organization of proteins. Proteins folding and denaturation. Different types of proteins. Simple and conjugate proteins. Collagen, elastin, keratin and tropomyosin. Glycoprotein and lipoproteins	3
3	Classification of enzymes. Mechanisms of action. Enzymatic active center. Cofactors and coenzymes. Clinical correlations related to some enzymatic pathology. Enzymes Kinetic. Kinetics of one and two-substrate reactions. Inhibitors. Regulations of enzymatic activity	3
4	Review of metabolic processes, bioenergetics, ATP, its role, biological oxidization	3
5	Membrane structure of mitochondria. Oxidation pathway and oxidative phosphorylation	3
6	Acetyl CoA sources and metabolic pathways. Krebs cycle and its regulation	3
7	Mobilization of ATP from glucose: glycolysis, regulation of glycolysis, pyruvate oxidation, shuttle systems	3
8	Production and degradation of glycogen. Clinical correlations with dysregulations of glycogen metabolism	3
9	Synthesis of glucose from non-carbohydrate substrates (gluconeogenesis). Cori cycle and Alanin cycle. Glucose synthesis from lactate. Regulation of gluconeogenesis. Control of glucose	3
10	Pentose phosphate pathway. Transformation of carbohydrates and production of nucleotide-related carbohydrates	3

11	Biosynthesis of fatty acids and triglycerides. Oxidation of fatty acids. Ketogenesis	3
12	Synthesis and degradation of amino acids. Amino acids as a source of nitrogen. Urea cycle and its regulation	3
13	Synthesis of purines and pyrimidines	3
14	Vitamins – general characterization and classification. Water-soluble vitamins. Fat-soluble vitamins	3

Subject Code:1AS0010104

Subject: Cell Biology and Genetics

Credits: 4

Teaching Scheme				Evaluation Scheme (Marks)				
Hours per week				Theory		Practical		Total (T+P)
L	T	P	Total	University Assessment	Continuous Assessment	University Assessment	Continuous Assessment	
4	0	0	4	60	40	-	-	100

Subject Content:

Sr. No.	Topic	Total Hours
1	Fundamental units of life	2
2	Chemical components of cells	2
3	Energy, catalysis and biosynthesis	2
4	Structure and functions of proteins	2
5	DNA and chromosomes	2
6	DNA replication, reparation and recombination	2
7	From DNA to proteins: how cells read DNA code	2
8	Control of gene expression	2
9	How genes and genomes evolve	2
10	Modern recombinant DNA technology	2
11	Membrane structure	2
12	Transport through cell membranes	2
13	How cells derive energy from food	2
14	Production of energy in mitochondria and chloroplasts	2
15	Intracellular compartments and protein transport	2
16	Cell signal mechanisms	2
17	Cell skeleton	2
18	Cell division cycle	2
19	Sexual reproduction and basics of genetics	2
20	Cell populations: tissues, stem cells and tumour cells	2

Subject Code:1AS0010105 Subject: Introduction to Normal Organ Systems and Modules

Credits : 4

Teaching Scheme				Evaluation Scheme (Marks)				
Hours per week				Theory		Practical		Total (T+P)
L	T	P	Total	University Assessment	Continuous Assessment	University Assessment	Continuous Assessment	
4	0	0	4	60	40	-	-	100

Subject Content:

Sr. No.	Topic	Total Hours
A	Anatomy	
1	Types of blood vessels, structure of vascular wall, anatomical model of blood circulation; arteries, veins, capillaries and their types; concept of capillary bed, anastomosis and perfusion	2
2	Lymph and immune system, their interrelations; Lymphatic vessels, their characteristics; lymph node and its anatomy	2
3	Anatomy of spleen and thymus; their blood supply and innervation; Other types of lymph tissue	2
B	Physiology	
	Blood System Physiology	
1	Internal environment of the body. Functions and properties of blood – physical and chemical constants of blood. Discussion about buffer properties of blood; haematocrit, MHC, acidosis and alkalosis; plasma composition and mechanisms of its maintenance; plasma proteins	2
2	Lymph composition and properties; lymph production, lymph circulation mechanisms Blood formed elements: RBCs, WBCs, PTs, their structure, function and amount in normal body; haematopoiesis; anaemia; transport and buffer functions of haemoglobin; haemolysis. Wide range of WBC types and their functions. Blood study lab methods. WBC formula and its importance. Production of blood cells – erythropoiesis, leukopoiesis; blood system characteristics in paediatric and geriatric age. Counting the formed elements of 1 cc human blood (using Bogorov camera). Defining erythrocyte sedimentation rate (ESR) – by Panchenkov method	2
3	Blood coagulation plasma factors. Blood formed element-derived and tissue-derived clotting factors. Vascular-thrombocytic hemostasis. Coagulative hemostasis. Anti-clotting mechanisms. Blood clotting regulation. Blood clotting; fibrinolysis; blood clotting pathologies	2
4	Types of immunity: congenital and acquired, development of T and B cells into immunocompetent lymphocytes. Role of T lymphocytes in activation of B cells. ABO system of blood groups. Specific	2

	characteristics of B lymphocytes, humoral immunity and antibodies. Definition of blood groups and Rh factor	
C	Biochemistry	
1	Blood and plasma proteins, Blood clotting mechanisms. Role of Vitamin K. Anticoagulants	2
2	Biochemical aspects of anemia Immunoglobulins	2
3	Congenital immune response, Adaptive immune response, Molecules involved in antigen recognition	2
4	Adaptive humoral immune response, Immunization, Biochemical composition of lymph, its circulation and its importance in normal and pathology cases	2
D	Histology	
1	Blood and lymph – special group of connective tissue; their structure, classification and function of the formed elements; Techniques of temporary and permanent specimen preparation; digital microscopy; drawing and analysis of schemes	2
2	Concept of central and peripheral hematopoietic organs. Embryonic and postembryonic hematopoiesis. Red bone marrow; Schemes of embryonic and postembryonic hematopoiesis schemes, cells	2
3	Thymus, spleen and lymph nodes; their structure, topography and function of immunocompetent cells	2
E	Clinical skills	
1	Assessment of anemia (a) color of skins and mucosal coverings (oral cavity, sclerae), pallor; (b) increased pulse rate (c) low blood pressure and orthostatic hypotension – measuring BP in sitting and standing positions;	2
2	Types of bleeding (capillary, venous, arterial) and their management techniques, Clinical skills needed for haemostasis, management of surgical bleeding, Blood sampling; capillary and venous blood sampling; centrifuging process, plasma separation and sedimentation of formed elements; defining blood clotting time by Lee-White method	2
3	Blood group definition method; Blood smear preparation method; Blood smear microscopy method;	2
	Immunization	
4	Vaccination calendar; National Vaccination Calendar; Ways of vaccine administration – per oral, intranasal, intramuscular, intradermal, subcutaneous	2

Subject Code:1AS0010106

Subject: Citology & Embriology

Credits: 4

Teaching Scheme				Evaluation Scheme (Marks)				
Hours per week				Theory		Practical		Total (T+P)
L	T	P	Total	University Assessment	Continuous Assessment	University Assessment	Continuous Assessment	
4	0	0	4	60	40	-	-	100

Subject Content:

Sr. No.	Topic	Total Hours
1	Subject and tasks of cytology, objects and methods of study. The general principles of the cell structure & structures within it. Concept of functional organelles of cell Cytology. Microscope types, preparation tissue for study Techniques for making temporary and permanent preparations.	3
2	The structure and function of the cell membrane. Membrane transport forms and cell structures involved in it. Cell structures. Transmembrane proteins, vesicular transport. Diversity of cells. Types of membranes	3
3	Structures within the cell: organelles and inclusion. Construction and function of membrane and non-membrane bounded organelles. Organelles: Endoplasmic Reticulum, Golgi Complex, Mitochondria, Ribosomes and Lysosomes and inclusions – their structure and function.	3
4	Structure and types of cytoskeleton, specializations of apical cell surface, cell-cell contacts. The structure of the cytoskeleton structures, types of intracellular contacts. Microvilli, stereocilia, cilia.	3
5	The structure and function of nucleus. Chromatin structure. Structure of nucleus and nucleolus. Structural organization levels of chromatin.	3
6	Cell division: mitosis. Cell cycle and its regulation. Characteristics of carcinogenesis mechanisms. The morphology and function of tumour cell. Types and phases of mitosis, cell cycle phases and related processes.	3
7	Cells death. Apoptosis and necrosis. The concept of stem cells, types and use in modern cell technologies. Signs of cell aging, apoptosis-morphology and biochemistry, regulation of apoptosis. Function of stem cells.	3
8	The concept and steps of embryogenesis and ontogenesis. Gametogenesis: spermatogenesis and oogenesis. The formation and structure of germ cells. Spermatogenesis and oogenesis. Morphology of sperm and oocyte formation, characterization of oocyte and sperm.	3

9	Fertilization process, phases and reactions. Division of the zygote. Types of Blastula, differentiation, cells of embryonic disk, their use in modern medicine. Fertilization and zygote, further division of zygote, cell segregation.	3
10	Blastula, implantation, formation of embryonic disk. Formation of blastocyst and its structure and development	3
11	Gastrula and histogenesis. Beginning development of cardiovascular system Gastrula, differentiation all three germ layers (ectoderm, endoderm and mesoderm).	3
12	Formation and differentiation of tissues in embryo Differentiation of tissues in embryo, Neural tube, and notochord formation	3
13	Formation of limbs, formation of organs at this stage, their structure and development; Yolk sac, amnion, chorion, allantois, placenta	3
14	Formation of organ system in embryo (Musculoskeletal, respiratory, digestive tract, excretion, reproductive, central nervous system) The characteristics of the development of system organs	3

Subject Code:1AS0010107 Subject: Modern Information Technology Credits: 3

Teaching Scheme				Evaluation Scheme (Marks)				
Hours per week				Theory		Practical		Total (T+P)
L	T	P	Total	University Assessment	Continuous Assessment	University Assessment	Continuous Assessment	
0	0	3	3	-	-	60	40	100

Subject Content:

Sr. No.	Topic	Total Hours
1	The role of informatics in modern society. Computer development history. General characterization of personal computer equipment. Computer software. The initial information about the operating system. General observation of modern IT development and new office systems. Windows: What is the operating system; Windows graphical interface; Task panel, main menu: description of tasks panel orders; Search the object; Control panel description; Set date and time; Control peripheral (external) device; Set a regional setting; Set up a new device (installation). Providing information, its protection, use and publicity in compliance with legal, ethical and professional aspects. Some law, ethics and professional code. Fonts convertible. Download / installation of the program needed to store MS Office files in PDF and XPS formats	2
2	Technical and software tools for working on the Internet. Internet searching through special sites. Finding Information: Through Internet-Address, Keyword, Field / Subject Findings. Create your own e-mail address. Send / receive emails. A brief overview of virtual storage of information (Dropbox). Online Office Systems GoogleDrive and OneDrive overview, basic principles of work and peculiarities. Discussion of the group work capabilities. Also the ability to sync files on a local computer. Overview of task management systems.	2
3	External devices for computers Printer, scanner, digital devices. Connect, install, storage devices, connecting computer to the network. Network settings.	2
4	Presentation programs. General Characteristics. Microsoft PowerPoint. Adding multimedia elements, managing buttons, creating web-presentation, working with slides in different modes. Work with text. The rules for concluding text objects. Principles of creating a successful presentation. Add graphics. Create a spreadsheet. Structure of diagrams and schemes. Decorating templates. Presentation printing modes.	2
5	Preparation of slideshow, review, file protection, working on presenting the presentation in its final form. Equipment for demonstration, demonstration. Prepare a presentation for a disc, publication of the presentation on the Internet.	2

	Animation, SlideShow: Insert Animation; Animated effects; installing musical effects. Saving presentation in other formats; Slideshow; Slideshow auto-display. Graphical Program Paint. Editing images. With Publications Preparing Software Microsoft Publisher preparing: Business Cards, Advertising Leaflets, Brochures, Invitations, Catalogs etc.. Create mailing lists and send / print.	
6	Set Microsoft Word settings. Use different modes of filing the document. Express-styles. Creating, editing and copying styles. Document formatting with style and working on them. Create a new consumer style and define its parameters. Working with the structure of the document, tabulation. Tabulation tactics. Creation a new document. Creation of template. Sharing the document and file.	2
7	Columns. Footnotes, bookmarks, links, and automated document using cross-referencing. Creating subject search, bibliography. Merge documents, Joint work on the document, review and protection. Mailing lists and their sending / printing. Work with web documents. Settlements of Print Settings. Print ordering, formatting list of pages in the print job. Sending the document according to the mailing list.	2
8	Various methods of inserting graphical objects, setting parameters, inserts, links. Insert symbols and link to the shortcut combination. Schematic diagram SmartArt. Equation – working in mathematical formulas editor. Work with tables. Convert text to table. Edit the spreadsheet. Express-spreadsheets. Use Styles in Table. Spreadsheet design. Work with Cover Page Create comments. Create Hyperlinks. Numbering pages. Text boxes	2
9	Excel interface. Excel home window. Office Button (OFFICE BUTTON). Quick Access Control Panel. How to Delete Command Keys on the Quick Access Panel. Lenta or working line. Name area, formula and addressING. Work with excel job books. Create a New File – Workbook. Use of electronic forms (templates) Save the book. Open the existing book. Work with several books simultaneously. Sort of books opened in a certain manner. Display all open window marks on the task panel. Protection and closing the book. Complete the program; Define the print page settings. Print. Books and sheet topics. Devision of the work sheet into two independent parts. Work sheet. Change the sheet name. Change the color of the sheet name. Transfer / copy the sheet. Go from one sheet to another to delete the sheet. Remove the contents of the worksheet. Add a sheet. Hiding the sheet. Protect the sheet. Wallpaper of the sheet. Sheet grid color. K olontite. Sheet scale. Sheet presentation modes. Status bar and excel counter.	2
10	Move data to excel and operations with marker marks. Move (navigate) in excel. Marking marker. Arithmetic progress. Geo. Automatically entering the consumer list. Autocomplete and select the data. Marks. Assign a name to a drawer or range. Assign a name from the context menu. Assign a name	2

	from name area field. Editing drawers / ranges names. Move data-copying. Move data / copy with the mouse. Data transfer / copy from buffer memory. Use multilevel buffers. Various means of installing storage tools of buffer memory.	
11	Work with drawers. Drawer style. Define a new style for the drawer. Drawer context menu. Insert comment on the box. Locate the data in the box. Text formatting in the box. Drawer graphic formatting. Drawing the frame of the drawer. Drawer wallpaper. Work with lines and columns. Change the size of the drawer, line, column. Adjust the size of the drawer. Determine the standard width of the drawer. Adjust the height of the columns and the lines. Hide / appearance of rows / columns. Add a drawer / line / column / sheet. Delete drawer / line / column / sheet. Folding rows and columns. Simultaneous attachment of the lines and column.	2
12	Data formats. Data entry and data types. Description of data formats. Work with data. Automatic formatting of the table. Conditional formatting. Designation of conditional formatting. Cancellation of conditional formats. Search data. Search and change data. Mark objects. Mark formulas. Select the constants. Select comments. Check the control boxes. Marking conditional formatting strings. Go to targets. Easy sorting. Sorting by several criteria. Filtration. Expanded filters. Data grouping and intermediate receipts.	2
13	Work with formulas. Formulas. What does the formula represent? Apply the function definition. Constanta. Arithmetic operators. Logic or comparable operators. Text operator - ampersand (&). Easy calculations. Copy the formula. Formula depicting instead of the results. Calculation of variables. Checking the formulas, auditing. The relationship between the drawers. Types of errors that are frequently done during calculation. Macros. Hypertension.	2
14	Functions. Logical Functions - IF, And, False, Or, Not. Text functions. Mathematical functions. Date Functions. Statistical functions. Information functions. Examples of the use of functions.	2
15	Data organization. Controlling data input. Work with arrays. What is an array? Data structuring. Data consolidation. Dynamic spreadsheets. Diagrams. Types of diagrams. Editing and formatting diagrams. Move the diagram to a new sheet. Move diagram on any work sheet. Build a trend. Usege of ready graphic schemes. Execute commands by combination of keyboard keys	2
16	Web services working with electronic documents. Electronic forms and templates of patient's medical record, medical prescription templates etc. Create and edit electronic documents (spreadsheets, presentations) in Google.docs. Common (shared) electronic accounts. Publishing electronic reports. Manipulations on electronic accounts.	2

Subject Code:1AS0010108 Subject: Basics of Clinical Communication Skills Credits: 2

Teaching Scheme				Evaluation Scheme (Marks)				
Hours per week				Theory		Practical		Total (T+P)
L	T	P	Total	University Assessment	Continuous Assessment	University Assessment	Continuous Assessment	
0	1	1	2	-	-	60	40	100

Subject Content:

Sr. No.	Topic	Total Hours
1	The responsibility of carrying white coat and the clinic's dress code. Subordination with patients and colleagues.	1
2	Doctor's personal hygiene. Hair, skin, nails and oral cavity hygiene rules.	1
3	Stress and stress management	1
4	Humanity and individual approaches to patients and their relatives, regardless of their age, sex, social or ethnic origin, religious sequence and sexual orientation, Art of communication with the heavy diagnoses and communication with the palliative and disabled persons.	1
5	The importance of proper communication in a patient's recovery process. Medical practice and the protection of personal information of patients.	1
6	Review of doctor's personal hygiene. Methods of hair, skin, nails and mouth care, products and frequency of their use. Assessment of each other's dress code. Discussion of different thematic cases.	1
7	The rules of doctor's behavior in stressful disorders. Behavior and communication with hysterical or excited patients. stress management and the obligation of endurance. Review of various situational cases and role-playing games.	1
8	Communicate with different social background, age and sex of people. The characteristics of communication, with different religious sequences and sexual orientation patients. High moral approaches. Examples of cases.	1
9	Communicate with parents of patient, relatives. Communicate with media representatives. Discussion of similar cases and work on the examples. Electronic and written communication principles, work on the example.	1
10	Communication, subordination, and ability to present your opinions with colleagues. Consilium, Conference - Review of the examples and work in the group.	1
11	Communication with patients and the doctor's action principles to various forms of violence or criminal suspicion. Case Studies and working in a group.	1

12	Keeping the patient's secret, Principles of privacy and personal information protection of patients. Case discussing group work. The students are given the task to create situational cases and present on the next practical class.	1
13	Students are playing role games, by the situation cases presented by themselves. Like, according to the random sampling of cases, one student performs a doctor, the second student is the patient. the rest of the students assessing the doctor, according to the "doctor's evaluation criteria". Also, the "student doctor" is evaluated by the fake patient. Case author is also evaluated by the teacher, the teacher is also assessing the "student doctor". The points are summarising and students gets finally grade of assessment.	3
