Sr No	Area of Learning Goal & Brief Information
1	**HEALTH EDUCATION** National Institute of Public Health Training and Research (NIPHTR) Mumbai, is the first Family Planning Training Centre, established in June 1957 under Welfare at 332, S.V.P. Road, Khetwadi, Mumbai - 4. It is one of the Central Training Institutes (C.T.I.) conducting in-service training for Medical and Para to enhance their knowledge and skills for better delivery of health care services These trainings are for the Central, State and District level health personr Centre is identified as a collaborating Institute for certain specialized training like Immunization, Communication, etc. NIPHTR has been a pioneering insti and has developed curricula for paramedical workforce e.g Multi-Purpose Workers, Community Health Guides, ANMs, Block Extension Educator Scheme Health Education (DHE) course was started in 1987 under the “Development of National Trained Health Manpower for the training of health education sp scheme of Ministry of Health & Family Welfare. The course was later renamed as Diploma in Health Promotion Education (DHPE) in 2000 after recomme recommendations of national health policy 2002 and subsequent to the launch of NRHM, Post Graduate Diploma in Community Health Care (PGDCHC) to develop the skilled manpower to deliver quality healthcare services in an integrated way at the grass-root level. The course is meant for the graduate p skills for better delivery of health care services. Both these courses are affiliated to International Institute for Population Sciences (IIPS), Mumbai, a Deem Health & Family Welfare, Govt. of India. NIPHTR develops its training activities keeping in pace with the changing scenario globally and at National level. Inspectors, Diabetes Educator, Home Health Aide, General Duty Assistant, First responder has been started. MUHS and NIPHTR Institute has jontly give Program (SIP) to the candidate to : 1.Learn, observe experience and achieve the objectives by completing the SIP. 2.share his ideas 3.Explore career an Create a meaningful full-time experience. 5.Grab opportunity to gain valuable applied experience. 6.Gain an insider and realistic view of SIP Center. 7.Be coursework with practical application and skill development: 8.Use the platform to develope network and make connections with professionals in intern’s multiple elements. The idea is that each intern will work with his/her mentor to create a summer plan that supplements the intern’s applied progress with development activities. It is a sort of experiential learning that integrates knowledge and theory learned in the classroom with practical application and ski setting. SIP is unique platform to provide significant exposure to students for observership with broad exposure to the organization / Orientation/Real life Professional relations in your esteemed organization and vice versa. In a nutshell SIP scheme is aimed to achieve following Objectives. a. To utilize the s ongoing undergaruate student for their value addition through extra-curricular activities. b. To provide a unique experience among the under graduate Ca backgrounds. c. To provide a platform for undergraduate Candidates of various disciplines such as Health science, Engineering, Managements, Arts, Sci understand diverse culture and traditional practices. d. To provide the research exposure for those interested in potential careers in health sciences and p provisions prescribed under National Education Policy like cultural awareness and societal well-being.

2	**NATUROPATHY** National Institute of Naturopathy (NIN), Pune is an autonomous body under Ministry of AYUSH, Government of India, located at a historical place called " Road, behind Pune Railway Station, Pune. "Bapu Bhavan" is named after Mahatma Gandhi, Father of the Nation, who made this Institute his home by sta visited Pune Since 1944. Formerly this place was known as "Nature Cure Clinic and Sanatorium", run by Late Dr. Dinshaw K. Mehta. AII India Nature Cur in this Centre and Mahatma Gandhi became its life long Chairman. Gandhiji conducted many National and International activities from this place. Gandhij sacred heritage to us. The National Institute of Naturopathy, PUNE came into existence on 22.12.1986. This Institute has a "Governing Body" headed by President. Mahatma Gandhi's life - long passion for Nature Cure led to close association with Dr. Dinshaw Mehta, an eminent Naturopath at Pune, transf into father-son relationship. On November 18, 1945, Mahatma Gandhi founded the 'All India Nature Cure Foundation Trust' as Founder-Trustee and Cha establishing a Nature Cure University.Dr. Dinshaw Mehta settled all the assets of his nature cure clinic to the Trust which subsequently was handed over establish the current National Institute of Naturopathy, under the Ministry of AYUSH, by renaming the premises as Bapu Bhavan. Government of India ha as the National Naturopathy Day, acknowledging the legacy of Mahatma Gandhi about his commitment and advocacy of Nature Cure MUHS and NIN Ins of Summer Intership Program (SIP) to the candidate to : 1.Learn, observe experience and achieve the objectives by completing the SIP. 2.share his ideas development activities. 4.Create a meaningful full-time experience. 5.Grab opportunity to gain valuable applied experience. 6.Gain an insider and realistic integrate academic coursework with practical application and skill development: 8.Use the platform to develope network and make connections with profe SIP is consisting of multiple elements. The idea is that each intern will work with his/her mentor to create a summer plan that supplements the intern's ap scientific development activities. It is a sort of experiential learning that integrates knowledge and theory learned in the classroom with practical applicatio professional setting. SIP is unique platform to provide significant exposure to students for observership with broad exposure to the organization / Orientat establish the Professional relations in your esteemed organization and vice versa. In a nutshell SIP scheme is aimed to achive follwing Objectives. a.To u 3rd year ongoing undergaruate student for their value addition through extra-curricular activities. b.To provide a unique experience among the under grad backgrounds. c.To provide a platform for undergraduate Candidates of various disciplines such as Health science, Engineering, Managements, Arts, Scie understand diverse culture and traditional practices. d.To provide the research exposure for those interested in potential careers in health sciences and p provisions prescribed under National Education Policy like cultural awareness and societal well-being.
3	**YOGA** Yoga is an ancient and complex practice, rooted in Indian philosophy. It began as a spiritual practice but has become popular as a way of promoting phys classical yoga also includes other elements, yoga as practiced in the United States typically emphasizes physical postures (asanas), breathing technique (dyana). There are many different yoga styles, ranging from gentle practices to physically demanding ones. Differences in the types of yoga used in resea This makes it challenging to evaluate research on the health effects of yoga. Yoga and two practices of Chinese origin—tai chi and qi gong—are sometim practices. All three practices include both meditative elements and physical ones. Yoga Sanskrit: , is a group of physical, mental, and spiritual practices o ancient India and aim to control (yoke) and still the mind, recognizing a detached witness-consciousness untouched by the mind (Chitta) and mundane su variety of schools of yoga, practices, and goals in Hinduism, Buddhism, and Jainism, and traditional and modern yoga is practiced worldwide.
4	**MEDICAL ONCOLOGY** Medical oncology is a type of medicine that focuses on the diagnosis, treatment, and prevention of cancer. A medical oncologist's job is to take care of ca chemotherapy, hormone therapy, targeted therapy, or immunotherapy. A medical oncologist will work with other doctors to create a treatment plan that's cancer diagnosis to you, including the type and what stage you have. They'll also help you manage your cancer symptoms and treatment side effects. Yo right after you've been diagnosed with cancer. This is usually one of the first steps of your cancer journey. They can help you understand your diagnosis a treatment. You'll also want to see a medical oncologist for any questions you might have. You may also see other oncologists depending on the type of ca treatment plan you want. There are three main types: A medical oncologist will treat your cancer with chemotherapy, hormone therapy, targeted therapy, oncologist will treat your cancer with radiation therapy. A surgical oncologist uses surgery to remove tumors. They also perform biopsies, where they'll rer can test it.

5	**GENETIC HEALTH** The human genome is made up of tens of thousands of genes. With approximately 30,000 genes to choose from, assigning a specific gene or group of g disease demands a methodical approach consisting of many steps. Traditionally, the process of gene discovery begins with a linkage analysis that asses analyses are typically followed by genetic association studies that assess disease across families or across unrelated individuals. Although there are mar family history is often one of the strongest risk factors for common disease complexes such as cancer, cardiovascular disease (CVD), diabetes, autoimm illnesses. A person inherits a complete set of genes from each parent, as well as a vast array of cultural and socioeconomic experiences from his/her fam good predictor of an individual's disease risk because family members most closely represent the unique genomic and environmental interactions that an genetic variation within families clearly contributes both directly and indirectly to the pathogenesis of disease. What is known or theorized about the direct what still must be explored in order to understand the environmental interactions and relative roles among genes that contribute to health and illness.
6	**NUTRITION** Nutrition is the biochemical and physiological process by which an organism uses food to support its life. It includes ingestion, absorption, assimilation, bi The science that studies the physiological process of nutrition is called nutritional science. Nutrients are substances used by an organism to survive, grow classes of relevant nutrients for animals (including humans) are carbohydrates, dietary fiber, fats, proteins, minerals, vitamins, and water. Nutrients can b (carbohydrates, dietary fiber, fats, proteins, and water needed in gram quantities) or micronutrients (vitamins and minerals needed in milligram or microgr with the provision of essential nutrients from food that are necessary to support human life and good health. In humans, poor nutrition can cause deficien blindness, anemia, scurvy, preterm birth, stillbirth and cretinism, or nutrient excess health-threatening conditions such as obesity and metabolic syndrome diseases as cardiovascular disease, diabetes, and osteoporosis. Undernutrition can lead to wasting in acute cases, and stunting of marasmus in chronic
7	**RESEARCH METHODOLOGY** The revised curriculum designs by NMC and UGC mandates Research Methodology as an essential component across courses. Research is essential to new contributions to the existing knowledge, thereby enhancing the quality of human life. The student of any field needs to be well versed with the basics techniques and designs and its applications. Research Methodology a science of studying how research is to be carried out. Essentially, the procedures l work of describing, explaining and predicting phenomena are called research methodology. The SIP for Research methodology programme will focus on starting from framing of SMART objectives to identifying the suitable design and analysing data through field exercise/study.
8	**ONE NATION ONE HEALTH CARE** ONE NATION ONE HEALTH CARE : Recent reports of healthcare reforms in India have reinforced the view that India's current healthcare system is not population. An estimated 600 million people in India, many in rural locations, have little or no access to better healthcare facilities. This can be overcome health, encompassing social, spiritual, mental and medical components of healthcare system (integration at ministry level, public and private health care f with involvement of the public) The key to delivering free healthcare in India without compromising quality is the biggest challenge. Our One Nation One H every citizen of India gets free and quality health care by 2030.

9	**MEDICAL BIOMETRY** Medical biometry (also known as Biostatistics) is the scientific modelling and analysis of quantifiable biomedical processes and phenomena. Students cor empirical studies and the mathematical modelling of relationships in (biology and) medicine. Medical biometry develops, implements and applies methods facilitate the extraction of new knowledge from medical data. Statistically valid interpretation of the results, and appropriate representation ensures that ou the relevant medical communities, and to the public. In order to successfully plan and conduct clinical research projects, Biometricians must possess not comprehensive medical and cross-disciplinary knowledge, and the ability to combine these two scientific disciplines. “Biometry is the application of statist central to all of science, because science needs that gathering of evidence and the evaluation of that evidence to make a judgment.”Biostatisticians use t experts in other fields, from biologists and cancer specialists to surgeons and geneticists. But they are not mere number-crunchers.
10	**MEDICAL TECHNOLOGY** Medical technology has a major strategic factor in positioning the hospital and its perception in the competitive environment of healthcare providers. Num devices and systems are continuously being introduced. They are being introduced at a time when the pressure on hospitals to contain expenditures is m deployment of medical technology and the capacity to continuously evaluate its impact on the hospital require that the hospital be willing to make the com such a program. An in-house “champion” is needed in order to provide the leadership that continuously and objectively plans. This figure might use additi expertise as needed. To focus the function of this program in large, academically affiliated, and government hospitals, the position of a chief technology o While executives have traditionally relied on members of their staffs to produce objective analyses of the hospital’s technological needs, they nevertheles biases of various interest groups, including marketing and vendor appeals. More than one executive has made a purchasing decision for biomedical techı some needed or expected features were not included with the installation or that those features were not yet approved for delivery. These features have c “vaporware.” Or, alternatively, it may be discovered that the installation has not been adequately planned, ending therefore as a disturbing, unscheduled,
11	**SOCIAL COMMITMENT** Social responsibility is an ethical framework in which individuals or corporations are accountable for fulfilling their civic duty and taking actions that will be or person is considering taking actions that could harm the environment or society, then those actions are considered socially irresponsible. There are a r company chooses to be socially responsible, such as: 1. Gives a company a competitive edge 2. Attracts strong candidates and increases retention 3. Ma investors 4. Improves business culture 5. Increases customer loyalty and advocacy 6. Improves company reputation
12	**ETHICS** Ethics or moral philosophy is a branch of philosophy that "involves systematizing, defending, and recommending concepts of right and wrong behavior". T aesthetics, concerns matters of value; these fields comprise the branch of philosophy called axiology. Ethics seeks to resolve questions of human moralit and evil, right and wrong, virtue and vice, justice and crime. As a field of intellectual inquiry, moral philosophy is related to the fields of moral psychology, Three major areas of study within ethics recognized today are: Meta-ethics, concerning the theoretical meaning and reference of moral propositions, and determined;Normative ethics, concerning the practical means of determining a moral course of action;Applied ethics, concerning what a person is obligat situation or a particular domain of action.
13	**ENVIRONMENTAL HEALTH** Environmental Health is the branch of public health concerned with all aspects of the natural and built environment affecting human health. Environmenta built environments for the benefit of human health. The major subdisciplines of environmental health are: environmental science; environmental and occu environmental epidemiology. Other terms referring to or concerning environmental health are environmental public health, and health protection. Environı document by the World Health Organization (WHO) as: Those aspects of human health and disease that are determined by factors in the environment. It practice of accessing and controlling factors in the environment that can potentially affect health.

14	**OCCUPATIONAL HEALTH** Occupational health is a multidisciplinary field of healthcare concerned with enabling an individual to undertake their occupation, in the way that causes le the promotion of health and safety at work, which is concerned with preventing harm from hazards in the workplace . Occupational health is an area of wo maintain highest degree of physical, mental and social well-being of workers in all occupations.Its objectives are:the maintenance and promotion of worke improvement of working conditions and the working environment to become conducive to safety and health;the development of work organization and wo essential value systems adopted by the undertaking concerned, and include effective managerial systems, personnel policy, principles for participation, a management practices to improve occupational safety and health. develop national policies and action plans and to build institutional capacities on occup
15	**SKILL LAB** “skills labs”, an abbreviation of skills laboratories, refers to specifically equipped practice rooms functioning as training facilities offering skill-based trainin to their real life application. Skill labs play a key role in medical and paramedical training quality assurance. Here, procedural skills are trained, repeatedly required minimum standard for patient treatment is ensured. NIPHTR, has a fully equipped Skill Lab at both its Campus. The skill lab has a mannequin ar up for hands on demonstration for the skill development courses like General Duty Assistant (GDA), Home Health Aid (HHA), Diabetic Educator and First care unit is developed with all foundation procedures to be performed. The Lab is well structured with all standard operating procedures required for each
16	**ENVIRONMENTAL HEALTH SCIENCES** The air we breathe; the water we drink; the land we build on and the homes we live in… numerous elements of our natural and man-made environment h Our complex interactions with the environment and physical surroundings influence our genetics and health. The relationships we have with the environm diseases and health conditions – including asthma, cancer, and food poisoning. Environmental health sciences professionals focus on identifying the rela environment around us on our health. They actively try to improve the public’s health addressing these environmental risk factors and putting in a concert us. This is a wide-ranging, complex, and multifaceted profession, spanning chemistry, toxicology and engineering, among many other disciplines. While a appreciated it is by no means necessary to work in this field. For example, occupation health is a facet of environmental health yet does not always includ example, construction workers or factory workers who work with heavy operational machinery every day. Like all public health fields, it also involves colla professionals, including chemists, geologists, biologists, meteorologists, physicists, physicians, engineers, human resources representatives, and even p environmental health science field you will be immersed in a “big picture” perspective of how environment and actions heavily affect our daily health. This interested. In the wake of recent man-made and natural disasters, the US is placing a high priority on building up the nation’s public health workforce. Sin increased for public health preparedness, including scholarship and loan repayment programs, workforce development grants, and funding for emergency for you? It means that with a degree in public health, you’ll be in high demand—and on a career path filled with advancement opportunities.
17	**SURGICAL ONCOLOGY** To talk about basic principles in surgical oncology, I need to explain how I arrived at them, how my experiences in surgery led me to espouse them, and h inflict them on you! As a psychology major at Amherst College, I only went to medical school to be a psychiatrist, but my exposure to surgery was so exci However, while attracted to surgery, I was also fearful of its demands. At a weekend visiting my parents, the husband of one of mother's best friends talke challenging and preoccupying career to be sure that he was constantly engaged, challenged, and free of boredom. That brief snatch of conversation som into surgery.

18	**BEHAVIOR AND SOCIETY HEALTH** Department of Health, Behavior and Society About. In the Department of Health, Behavior and Society (HBS), we develop, evaluate, and implement solut Institute. Our HBS Summer Institute offers short, intensive courses that provide students with an understanding Winter Institute. Our HBS Winter Institute exploring behavioral and societal In the Department of Health, Behavior and Society (HBS), we develop, evaluate, and implement solutions to pressing pu throughout the U.S., and in some two dozen countries around the world. We believe that human behaviors are key determinants of health and well-being reside at multiple levels, including: The individual level: people's own attitudes, beliefs, and emotions. The interpersonal level: people's social networks at elsewhere. The policy level: policies that promote or hinder access to healthy living, including access to healthcare, insurance, and housing. The structura and injustice.
19	**POLICY AND MANAGEMENT** The Foundational Role of Policies in the Organization. Policies are critical to the organization as they establish boundaries of behavior for individuals, pro transactions. Policy management is the process of creating, communicating, and maintaining policies and procedures within an organization. An effective mitigate risk in two ways. First, it makes policies more quickly accessible to direct care staff, guiding care and safety decisions. Second, it can protect an up to date on accreditation standards and creating an audit trail in the case of legal action. Because the process of managing policies can be expensive a should make the implementation of an efficient policy management system a priority. A comprehensive and well-managed set of policies can support GR boundaries and expectations, establishing a culture of compliance within the organization, protecting the organization from litigation, and helping achieve management can be described in the following four step cycle: 1. Creation: When a need is identified within an organization, a policy is written and goes t Communication: After creation and approval, a policy is communicated to staff. This includes publication of the policy, training, and attestation. 3. Manage policy, it is consistently enforced and exceptions are managed when applicable. 4. Maintenance: Policies are reviewed regularly, updated, and archived w Ethics Group, 2012).
20	**WELLNESS** Wellness is an active process of becoming aware of and making choices towards a healthy and fulfilling life. It is more than being free from illness, it is a growth. A good or satisfactory condition of existence; a state characterized by health, happiness, and prosperity; welfare. "Wellness is a state of complete being, and not merely the absence of disease or infirmity." – The World Health Organization. According to several studies, the most common health probl problem is often manifested in the form of insomnia, stress, poor nutrition, physical inactivity, obesity, and heart disease, etc. Irrespective of a person's ag attractiveness, it is wellness that is the cornerstone of quality of life. It determines how we ultimately look, feel, interact with others and thrive in life and w development of the whole self. Embarking on a wellness journey is a process of searching for the appropriate "tools" to make you a healthier and happier own effective methods to use these "tools" for continued growth and development. As there is a great variety on all aspects of life, there are also countles ever-changing path of wellness.
21	**NATIONAL HEALTH POLICY** NATIONAL HEALTH POLICY : The primary aim of the National Health Policy, 2017, is to inform, clarify, strengthen and prioritize the role of the Governm dimensions- investments in health, organization of healthcare services, prevention of diseases and promotion of good health through cross sectoral actio developing human resources, encouraging medical pluralism, building knowledge base, developing better financial protection strategies, strengthening re The policy envisages as its goal the attainment of the highest possible level of health and wellbeing for all at all ages, through a preventive and promotive developmental policies, and universal access to good quality health care services without anyone having to face financial hardship as a consequence. Th increasing access, improving quality and lowering the cost of healthcare delivery. The policy recognizes the pivotal importance of Sustainable Developme

22	**OVERALL ASPECTS OF PSYCHIATRY AS A MEDICAL DISCIPLINE & ITS SOCIAL APPLICABILITY IN INDIA** Human rights and mental health care of vulnerable population need supportive legislations and policies. Both “hard” and “soft” laws relevant to mental hea internationally and locally. Amendments in laws and the formulation of new laws are often required and have been seen to occur in the area of mental hea mental health care has largely been reactive, but newer legislations and policies carry the hope of proactive reform. The lack of trained human resources effective mental health care delivery in India. People with mental disorders are vulnerable to abuse and violation of their basic rights. Such abuse or viola in society including institutions, family members, caregivers, professionals, friends, unrelated members of the community, and law enforcing agencies. Th mechanism to ensure appropriate, adequate, timely, and humane health care services. Such protective mechanisms include legislative provisions and po vulnerable group are protected. In the undeniable context that every society needs laws in various areas to maintain the well-being of its people, mental h that requires appropriate legislation. In this paper, we first provide a brief overview of the “hard” and “soft” laws that have been influential in mental health and nationally. We then provide a brief glimpse of some of the efforts at the national level to address issues of human rights of persons with mental illness the broad areas that forensic psychiatry embraces. We then examine the status of forensic psychiatry in India and finally discuss the need to develop con training in India.
23	**PSYCHIATRIC CARE & TREATMENT** Psychiatric care leads to improved management of medically ill patients with psychiatric comorbidity. This is the rationale of the practice of c-l psychiatry, within a value matrix, taking into account treatment outcomes in medically ill patients with psychiatric comorbidity, as well as economic savings by adding standard medical treatment. Cost–benefit issues of consultation psychiatry service delivery have been demonstrated initially in general hospital inpatients trend to reduced length of hospital stay with corresponding reductions in cost of treatment in medical patients after a psychiatric liaison service was inaug without such an intervention program (APM 1997). Housing and psychiatric treatment are key interventions for the mentally ill homeless, but neither of the improve their situation. A variety of interventions have evolved that combine these components in different ways. All models that integrate housing and m be more effective in reducing homelessness than has standard mental health care. Supported housing is consistently shown to have the greatest effect o on psychiatric symptoms, hospitalisations.
24	**MEDICAL MANAGEMENT OF PATIENTS WITH PSYCHIATRIC ISSUES** Psychomotor agitation (PMA) is a state of motor restlessness and mental tension that requires prompt recognition, appropriate assessment and manager patient and reduce the risk for escalation to aggression and violence. Standardized and applicable protocols and algorithms can assist healthcare provide achieve timely diagnosis and implement minimally invasive management strategies to ensure patient and staff safety and resolution of the episode. Meth different disciplines (psychiatrists, psychologists and nurses) convened in Barcelona for a meeting in April 2016. Based on recently issued international co of care for psychiatric patients with PMA, the meeting provided the opportunity to address the complexities in the assessment and management of PMA f attendees worked towards producing a consensus for a unified approach to PMA according to the local standards of care and current local legislations. T reviewed and ratified by all members of the panel prior to its presentation to the Catalan Society of Psychiatry and Mental Health, the Spanish Society of Spanish Network Centre for Research in Mental Health (CIBERSAM) for input. The final protocol and algorithms were then submitted to these organizatio protocol presented here provides guidance on the appropriate selection and use of pharmacological agents (inhaled/oral/IM), seclusion, and physical rest suspected of or presenting with PMA. The protocol is applicable within the Spanish healthcare system. Implementation of the protocol and the constituent ensure the best standard of care of patients at risk of PMA. Episodes of PMA could be identified earlier in their clinical course and patients could be mana coercive manner, ensuring their own safety and that of others around them.

25	**MATERIAL DEVELOPMENT FOR DENTAL APPLICATION NANOTOXICOLOGY** Oral medicine is one of the most prevalent areas for the growth of nanotechnology to improve people's dental health, and therefore having the potential to issues regarding the use of nanomaterials on human have been debated over years, however, research on nanomaterials has established that its use ha disadvantages The study of nanoscience involves a scale within a range of 1–100 nm Research in nano-biotechnology has also led to the development o using “green chemistry” . Nanomaterials have unique physical and chemical properties owing to their small size and large numbers, therefore an overall la attracted much attention for its use in various dental applications A challenge most dentists face is to find composites that mimic the lost dentinal tissue a original dental aesthetic. The development of nanotechnology based bio-mimetic approach to replicate natural bio-material has been viewed as a newer v materials Oral antibacterial materials work by breaking down or preventing the formation of biofilms on teeth surfaces in the mouth. Adding elements such nanoparticles in the mixer of biomaterials can potentially improve antimicrobial properties Metallic nanoparticles (Metallic NPs) provide a large surface are reach. In addition, metallic nanoparticles enhance mechanical properties such as strength and durability Inorganic Nanoparticles primarily based on meta their possible use as fillers for dental nanocomposites A pathogenic micro-organism such as Streptococcus mutans (S. mutans) forms colonies between t enamel and dental restorations that leads to destruction of tooth.
26	**APPROACH TO EMERGENCY HEALTHCARE** An emergency is commonly defined as any condition perceived by the prudent layperson—or someone on his or her behalf—as requiring immediate med treatment. On the basis of this definition, the American College of Emergency Physicians states that the practice of emergency medicine has the primary providing treatment to these patients with unexpected injury and illness. Management of emergencies is an integral part of primary care. Being first conta may encounter any type of emergency. Acute attacks of asthma, myocardial infarction, anaphylactic shock, hypoglycemic coma, convulsions, head injurie common emergencies encountered by GPs. Updated knowledge, communication and procedural skills, trained paramedical staff, necessary equipment a practice organization are vital to provide optimum care which may even save lives of patients. The wide range of problems and the rarity of the problems doctors to be updated and competent in providing emergency care. Some of the emergencies can be managed completely at a general practice while oth after initial management. The extent to which a patient should be managed may be determined by the degree of severity of the condition, expertise of the hospital. Apart from pharmacological management, explanation about the condition and the need for admission and appropriate advice on care prior to ad management. Writing an appropriate referral, arranging transport facilities, informing the hospital about the referral are also important steps in the proces crucial delays. Conclusion: Emergency care is a responsibility of primary care doctors and they should be knowledgeable and skilled and organize their p effective management whenever the need arises Hence to study the Approach to Emergency healthcare is important.
27	**EPIDEMOLOGY** The basic knowledge of Epidemiology, of how, when and why diseases occur in different groups of people has assumed great importance esp. in post-Co within the broader field of public health and its relationship to medicine, social and behavioural sciences, environmental science, and health policy needs disease and design suitable preventive and control measures. Epidemiological research is enriched by important disease outcomes, such as Vector-born cancer, and factors important in disease causation, such as nutrition, socioeconomic, the environment etc. The SIP for Epidemiology programme will give distribution and determinants of both chronic and infectious diseases in different populations, apply principles of disease prevention within populations, ar epidemiological research in at least three substantive areas (e.g., diseases, other health outcomes, exposures). It will provide the skills needed to conduc prevention, and control of Communicable and Non-communicable diseases. Epidemiology is the study of the distribution and determinants of health-relat populations,

28	**YOGA NATUROPATHY & AYURVEDA INTERVENTION** Nature cure or Naturopathy medicine is a form of alternative medicine that works in helping the body to heal itself, using the force of Nature It fundamenta agents of nature that is the earth water fire and the air along with ether. Naturopathy does not believe in the specific cause of disease and its specific trea totality of factors responsible for disease such as ones unnatural habits in living, thinking, working, sleeping, relaxing, sexual indulgence etc. It also consi involved which on the whole disturb the normal functioning of the body and lead to a morbid, weak and toxic state.The treatment is based on the concept problems including health. The human body has the ability to perform the most complicated functions and to cope with various adverse situations.Yoga th has been influenced by the ancient Indian practice of yoga.It involves holding stretches as a kind of low-impact physical exercise, and is often used for th existing mental and physical health issues, but can also be used as a self-care strategy for prevention and maintenance.Both the meditative and the exer researched for specific and non-specific health benefits.It has been studied as an intervention for many conditions, including back pain, stress, and depre
29	**NUTRITION & DIETETICS** Nutrition & Dietetics, a subdiscipline of Medicine, is the science that focuses on everything related to food and its effect on our health and overall wellbein improve people's health and help them make better dietary choices. They also help patients find a balance between good eating habits and exercising.Nu of sciences, but the two most popular specialisations are weight control and chronic illnesses. If you want to change your diet, it's best to consult a certifie on the internet, but you should always talk with a professional before adopting one. Students in Nutrition & Dietetics discover why and how certain eating and ways we can improve our health. You also learn to provide proper consultation to patients and design nutritional therapies based on people's individu not only help you to treat people's diseases, but also to prevent them. The need for nutritionists is increasing due to the fast pace of our world and our life make sure we don't eat just the food that only tastes good and looks good, but also the food that's healthy for us.Your job won't be simple, as it's often ea than change it. Still, you can make an important difference in people's lives and help them live longer and healthier. You'll also need to have knowledge a complement a healthy diet in order to give the right advice to your patients. Graduates from a Bachelor's or Master's degree in Nutrition & Dietetics will ea organisations such as: private sector or public hospitals, nursing care facilities, advertising or marketing, food manufacturing.
30	**BIOSTATISTICS** Biostatistics is the application of statistical techniques to scientific research in health-related fields, including medicine, biology, and public health, and the these areas. Since the beginning of the twentieth century, the field of biostatistics has become an indispensable tool in improving health and reducing illn Biostatisticians play essential roles in designing studies, analyzing data and creating methods to attack research problems as diverse as:-the determinati disease, lung disease and cancer-the testing of new drugs to combat AIDS-the evaluation of potential environmental factors harmful to human health, suc pollutants.What are the career prospects for Biostatistics PSM graduates?Job prospects for biostatistics graduates are excellent, with career opportunitie pharmaceutical and medical device companies.What is Categorical Data Analysis?What is Survival Analysis?Survival analysis concerns the statistical mo data where the variable of primary interest is the time interval between some specified origin and the event of interest occurring. The event of interest is u endpoint (other terms include terminating or target event, or failure). Survival data may also be referred to as time-to-event data, lifetime data, failure time event history data. It arises commonly in applications in Medicine, Social Sciences and Engineering.What is Clinical Trials?A clinical trial is a research stu about vaccines or new therapies or new ways of using known treatments. Clinical trials (also called medical research and research studies) are used to d treatments are both safe and effective. Carefully conducted clinical trials are the fastest and safest way to find treatments that work.

31	**HOLISTIC APPROACH TOWARD PREVENTION OF AGING & HEALTHY LIVING** Objectives: To date, methodologies are lacking that address a holistic assessment of wellness in older adults. Technology applications may provide a pla have not been validated. We set out to demonstrate whether e-health applications could support the assessment of older adults' wellness in community-d Methods: Twenty-seven residents of independent retirement community were followed over 8 weeks. Subjects engaged in the use of diverse technologie physiological and functional variables, as well as psychometric components of wellness. Data were integrated from various e-health sources into one stuc assessed between different parameters, and hierarchical cluster analysis was used to explore the validity of the wellness model. Results: We found stron parameters of wellness within the conceptual model, including cognitive, functional, and physical. However, spirituality did not correlate with any other pa studies of older adults. Participants expressed overall positive attitudes toward the e-health tools and the holistic approach to the assessment of wellness concerns. Conclusions: Parameters were highly correlated across multiple domains of wellness. Important clusters were noted to be formed across cogni further evidence of need for an integrated approach to the assessment of wellness.
32	**MEDICAL TECHNOLOGY TRADITIONAL HEALTH CARE SYSTEM** Traditional medicine refers to health practices, approaches, knowledge and beliefs incorporating plant, animal and mineral based medicines, spiritual ther exercises, applied singularly or in combination to treat, diagnose and prevent illnesses or maintain well-being. In the last decade traditional medicine has partly due to the long unsustainable economic situation in the country. The high cost of drugs and increase in drug resistance to common diseases like m sexually transmitted diseases has caused the therapeutic approach to alternative traditional medicine as an option for concerted search for new chemical Organisation (WHO) in collaboration with the Cameroon Government has put in place a strategic platform for the practice and development of TM in Cam harmonizing the traditional medicine practice in the country, create a synergy between TM and modern medicine and to institutionalize a more harmonize 2012 in Cameroon. An overview of the practice of TM past, present and future perspectives that underpins the role in sustainable poverty alleviation has l insight into the strategic plan and road map set up by the Government of Cameroon for the organisational framework and research platform for the practi global partnership involving the management of TM in the country.
33	**COMPUTATIONAL AND STATISTICAL GENOMICS** Brain imaging genomics is an emerging data science field, where integrated analysis of brain imaging and genomics data, often combined with other bion data, is performed to gain new insights into the phenotypic, genetic, and molecular characteristics of the brain as well as their impact on normal and disor has enormous potential to contribute significantly to biomedical discoveries in brain science. Given the increasingly important role of statistical and machi growing literature in brain imaging genomics, we provide an up-to-date and comprehensive review of statistical and machine learning methods for brain in practical discussion on method selection for various biomedical applications.
34	**GENETIC COUNSELING** Genetic counseling is the professional interaction between a healthcare provider with specialized knowledge of genetics and an individual or family. The g a condition in the family may be genetic and estimates the chances that another relative may be affected. Genetic counselors also offer and interpret gen risk of disease. The genetic counselor conveys information in an effort to address concerns of the client and provides psychological counseling to help fa Genetic counseling is a professional interaction between a provider and somebody from the general public. You can request to see a genetic counselor b something that's in your family history or you want to know what screening tests are available to you in order to prevent something from occurring in your counseling because somebody is concerned that something's wrong with your child or somebody else in your family. We think about genetic counseling a understanding the genetic contribution to disease. It's a process of understanding ways to avoid risks or minimize risks to affected individuals. But importa people can talk about their feelings of loss, and disappointment and heartbreak and be given opportunities to make good, informed decisions and to impr

35	**ELECTRONIC MEDICAL RECORDS & HIMS** The HIMSS Electronic Medical Record Adoption Model (EMRAM) measures clinical outcomes, patient engagement and clinician use of EMR technology performance and health outcomes across patient populations. The internationally applicable EMRAM incorporates methodology and algorithms to score a outpatient and day case services provided on the hospital campus. EMRAM scores hospitals around the world relative to their digital maturity, providing a and begin a digital transformation journey towards aspirational outcomes. Measuring evidence-based data at each stage, organizations use EMRAM to o improve performance and financial sustainability, build a sustainable workforce, and support an exceptional patient experience. Leveraging information di clinician satisfaction by reducing errors in care, length of stay for patients and duplicated care orders, and streamlining the access and use of data to infor
36	**NABH (QUALITY MANAGEMENT SYSTEMS)** NABH Standards for hospitals, 4th Edition, December 2015 has been released (set of three books, NABH Standards, Guide Book and Annexure) can be standards provide framework for quality assurance and quality improvement for hospitals. The standards focus on patient safety and quality of care. The monitoring of sentinel events and comprehensive corrective action plan leading to building of quality culture at all levels and across all the functions. The two major aspects of healthcare delivery i.e. patient centered functions (chapter 1-5) and healthcare organisation centered functions
37	**MANAGEMENT** Management (or managing) is the administration of an organization, whether it is a business, a non-profit organization, or a government body. It is the art of the business. Management includes the activities of setting the strategy of an organization and coordinating the efforts of its employees (or of voluntee through the application of available resources, such as financial, natural, technological, and human resources. "Run the business" and "Change the busir in management to differentiate between the continued delivery of goods or services and adapting of goods or services to meet the changing needs of cus "management" may also refer to those people who manage an organization—managers. Some people study management at colleges or universities; ma the Bachelor of Commerce (B.Com.), Bachelor of Business Administration (BBA.), Master of Business Administration (MBA.), Master in Management (MS the Master of Public Administration (MPA) degree. Individuals who aim to become management specialists or experts, management researchers, or profe Management (DM), the Doctor of Business Administration (DBA), or the Ph.D. in Business Administration or Management. In the past few decades, there based management.
38	**HEALTH ISSUES OF URBAN SLUMS** Urban slums, like refugee communities, comprise a social cluster that engenders a distinct set of health problems. With 1 billion people currently estimate neglected population has become a major reservoir for a wide spectrum of health conditions that the formal health sector must deal with. Unlike what occ formal health sector becomes aware of the health problems of slum populations relatively late in the course of their illnesses. As such, the formal health s and end-stage complications of these diseases at a substantially greater cost than what it costs to manage non-slum community populations. Because of settlements, and cultural, social, and behavioral factors unique to the slum populations, little is known about the spectrum, burden, and determinants of ill give rise to these complications, especially of those diseases that are chronic but preventable. In this article, we discuss observations made in one slum c Salvador, the third largest city in Brazil, to highlight the existence of a spectrum and burden of chronic illnesses not likely to be detected by the formal sec complications or death. Lack of health-related data from slums could lead to inappropriate and unrealistic allocation of health care resources by the public misassumptions and misallocations are likely to exist in other nations with large urban slum populations.

39	**HOLISTIC AND INTEGRATED HEALTH** Reviews the range of quality activity in a National Health Service hospital trust, using a staff questionnaire survey, selfassessment against the Baldrige Q application of the SERVQUAL approach to service quality assessment. Reviews the acute health care quality programme literature. Finds that there are r effort, to engage with patients in a more meaningful manner, and to achieve greater commitment and involvement from clinicians and managers. Identifie major barrier to greater application of quality programmes. Explores ways of developing a more holistic and integrated programme of quality improvemen implementation of a model for continuous improvement in health care quality.
40	**HEALTH ISSUES OF RURAL POPULATION** The rural population is consistently less well-off than the urban population with respect to health. Differences between the two populations are not always population is more likely to engage in risky health-related behaviors and to experience higher rates of chronic conditions and activity limitations. Rural res uninsured for longer periods of time, and are less likely than urban residents to receive some types of health care, including tests for various chronic conc in rural areas is generally associated with the fact that there are fewer providers. This Profile compares people who live in a metro-politan statistical area MSA). People who reside in a MSA are referred to as urban residents and those who live in a non-MSA are referred to as rural residents. About one-fifth rural area. Larger differences between the rural and urban populations may be masked as a result of the way the data are reported. The use of broad “url some differences because of the substantial variations in population size and density. For example, a rural area may refer to a county with a city of 10,00 has an extremely low population density, usually fewer than 6 people per square mile.
41	**BLOOD DONATION MOVEMENT** The history of voluntary blood donation in India dates back to 1942 during the second world war when blood donors were required to help the wounded s established in Kolkata, West Bengal in March 1942 at the All India Institute of Hygiene and Public Health and was managed by the Red Cross. The donor employees and people from the Anglo-Indian community who donated blood for a humanitarian cause. The number of voluntary donors declined after the the blood. Leela Moolgaonkar, a social reformer, initiated voluntary blood donation camps in Mumbai from 1954.[1] The 1960s saw many blood banks op Indian Society of Blood Transfusion and Immunohaematology headed by J. G. Jolly declared 1 October as the National Voluntary Blood Donation Day Cr several parameters that determine the eligibility of an individual to donate blood. Guidelines laid down by the Ministry of Health, Government of India have donor screening.
42	**BLOOD BANKING** Blood banking is the process that takes place in the lab to make sure that donated blood, or blood products, are safe before they are used in blood transf Blood banking includes typing the blood for transfusion and testing for infectious diseases. A certain set of standard tests are done in the lab once blood i to, the following:Typing: ABO group (blood type) Rh typing (positive or negative antige) Screening for any unexpected red blood cell antibodies that may Screening for current or past infections, including: Hepatitis viruses B and C Human immunodeficiency virus (HIV) Human T-lymphotropic viruses (HTLV) components of blood? While blood, or one of its components, may be transferred, each component serves many functions, including the following: Red b to the tissues in the body and are commonly used in the treatment of anemia. Platelets. They help the blood to clot and are used in the treatment of leuke blood cells. These cells help to fight infection, and aid in the immune process.Plasma. The watery, liquid part of the blood in which the red blood cells, wh suspended. Plasma is needed to carry the many parts of the blood through the bloodstream. Plasma serves many functions, including the following: Help

43	**CANCER GENOMICS** The International Cancer Genome Consortium (ICGC) is one of the most ambitious biomedical research efforts since the Human Genome Project. The IC large scale studies to generate high resolution catalogues of genomic alterations in tumors of 50 different cancer types/subtypes that have clinical and so These studies undertaken by the member countries of ICGC will eventually analyze over 25,000 cancer genomes at the genomic, epigenomic and transc repertoire of oncogenic mutations with the goal towards accelerating efforts to develop better ways of diagnosing, treating and preventing cancer. All the standards in ethical consent, patient recruitment as well as data collection, storage, analyses and access. Since the overarching goal of ICGC is to maxin are being made rapidly available to qualified investigators (www.icgc.org) .
44	**NANO TECHNOLOGY** Nanotechnology is science, engineering, and technology conducted at the nanoscale, which is about 1 to 100 nanometers. Nanoscience and nanotechno extremely small things and can be used across all the other science fields, such as chemistry, biology, physics, materials science, and engineering. The i nanoscience and nanotechnology started with a talk entitled “There’s Plenty of Room at the Bottom” by physicist Richard Feynman at an American Physi Institute of Technology (CalTech) on December 29, 1959, long before the term nanotechnology was used. In his talk, Feynman described a process in wh manipulate and control individual atoms and molecules. Over a decade later, in his explorations of ultraprecision machining, Professor Norio Taniguchi co wasn't until 1981, with the development of the scanning tunneling microscope that could "see" individual atoms, that modern nanotechnology began It’s h nanotechnology is. One nanometer is a billionth of a meter, or 10-9 of a meter. Here are a few illustrative examples:There are 25,400,000 nanometers in about 100,000 nanometers thick On a comparative scale, if a marble were a nanometer, then one meter would be the size of the Earth.
45	**MOLECULAR BIOLOGY** Molecular biology is the branch of biology that seeks to understand the molecular basis of biological activity in and between cells, including molecular syn and interactions. The study of chemical and physical structure of biological macromolecules is known as molecular biology. Molecular biology was first de the underpinnings of biological phenomena - uncovering the structures of biological molecules as well as their interactions, and how these interactions ex biology. In 1945 the term molecular biology was used by physicist William Astbury. The development in the field of molecular biology happened very late system or advantageous approach would be made in simple way of understanding by using bacteria and bacteriophages this organism yields information readily than animal cell. In 1953 then two young men named Francis Crick and James Watson working at Medical Research Council unit, Cavendish labo Laboratory of Molecular Biology), made a double helix model of DNA which changed the whole research scenario they proposed the DNA structure base Rosalind Franklin and Maurice Wilkins then the research lead to finding DNA material in other microorganisms, plants and animals. Molecular biology is r molecules and their interactions; rather, it is also collection of techniques developed since the field's genesis which have enabled scientists to learn about technique which has revolutionized the field is the polymerase chain reaction (PCR), which was developed in 1983. PCR is a reaction which amplifies sm many applications across scientific disciplines, as will be discussed later.

46	**BIOMEDICAL INSTRUMENTATION** Biomedical Instrumentation is an application of biomedical engineering, which focuses on the devices and mechanics used to measure, evaluate, and tre the use of multiple sensors to monitor physiological characteristics of a human or animal. Such instrumentation originated as a necessity to constantly mo NASA's Mercury, Gemini, and Apollo missions. [dubious – discuss] Bioinstrumentation is a new and upcoming field, concentrating on treating diseases ar and medical worlds. The majority of innovations within the field have occurred in the past 15-20 years. Bioinstrumentation has revolutionized the medical much easier. The instruments/sensors convert signals found within the body into electrical signals. There are many subfields within bioinstrumentation, th creation of sensor, genetic testing, and drug delivery. Other fields of engineering, such as electrical engineering and computer science, are related to bioi has since been incorporated into the everyday lives of many individuals, with sensor-augmented smartphones capable of measuring heart rate and oxyge availability of fitness apps, with over 40,000 health tracking apps on iTunes alone. Wrist-worn fitness tracking devices have also gained popularity, with a measuring the user's biometrics, and relaying them to an app that logs and tracks information for improvements.
47	**INFECTION BIOLOGY (INFECTIOUS DISEASES)** Despite India’s rapid economic growth and growing technological prowess, it continues to face a heavy burden of infectious diseases, including high rates and other neglected diseases. Towards this direction with the vision to mitigate the problems associated with these diseases, the Department under Infec solicits a wide array of projects on bacterial, viral, parasitic, and fungal diseases spanning the spectrum from basic biology of human pathogens and their through translational and clinical research toward the development of new and improved diagnostics, drugs, and vaccines for infectious diseases.The foll for this program:Understanding the molecular structure and function of known viral, bacterial, fungal and parasitic pathogens and identify new pathogens. of infection, pathogenicity, virulence, host-pathogen interactions, development of drug resistance for diseases such as TB, repurposing of drugs for infect resistance.Development of indigenous, reliable, rapid, sensitive, specific, cost-effective, and easy to use in a variety of settings diagnostic platforms and t better understand and enhance immune responses, and to identify promising new vaccine targets for infectious diseases of national as well as global hea targets for developing novel approaches to broad-spectrum interventions and new strategies for developing immunotherapies, including those based on h
48	**ENVIRONMENTAL HEALTH SCIENCES (TOXICOLOGY DEPARTMENT)** Toxicology and Environmental Health Sciences publishes original Research Articles, Rapid Communications, and Mini Reviews. The Journal is intended discussing fundamental and applied research advances relevant to the issues of local/global environments, human/animal health, and occupational safety interdisciplinary approaches to solve current local/global environmental issues related with above topics are welcomed; such as cutting-edge applications chemistry and biology, which could contribute significantly with new (or which could advance the understanding) understandings in the predictions, measu consequential effects of toxic hazardous harmful chemicals in the environment. The Journal also provides a forum for professionals in academia, industry protection, and management of the chemicals in environment for the enhancement of human health and occupational safety.

49	**PANCHAKARMA THERAPY** Ayurveda has rightly emphasized that health is not only the state of not having disease but, it is the state of normalcy of Dosha, Dathu, Agni and Malakriy (soul), Indriya (sense organs) and Manas (mind). Three doshas of the body, Vata, Pitta and Kapha, which broadly represent the nervous system, the met system, keep the human body in balance. Whenever the delicate balance between these doshas is disturbed, a disease may be manifested. The main ob treatment is to restore the original state of equilibrium between the doshas. In order to achieve the same Ayurveda has advocated certain regimens and t Dinacharya, Rutucharya, Vega Adharana, Rasayana–Vajikarana and Panchakarma. Panchakarma is a method of cleansing the body of all the unwanted Panchakarma are 5 (five) in number; hence the term PANCHA (five) – KARMA (procedures). Panchakarma treatment is unique in the sense that it includ actions for various diseases. Five Karmas The body can be divided on the basis of the parts that need cleansing. Head, GIT (gastro- intestinal system), u Karmas to cleanse the complete body are Vamanam (therapeutic emesis) - induced vomiting helps clear the upper gastro till the duodenum (end of stom Virechanam (purgation) - induced purgation clears the lower gastro from the duodenum (end of stomach) till the exit. Anuvasana (enema using medicated rectal area and take out all the lipid soluble waste out through the anus. Nasyam - nasal instillation of medicated substances helps clear the respiratory tr Vasti (Therapeutic Decoction Enema) - decoction enema cleanses the area from the transverse colon till the anus. Steps followed The complete process steps. Poorva Karma, which is the preparatory procedure required before the main procedure to enable a person to receive the full benefits of the main tr processes – Snehan (oleation) and Swedan (fomentation). These methods help to dislodge the accumulated poisonous substances in the body, thus prep removal. Pradhan Karma or the main procedure. On completion of the first step, it is decided which of these are to be done depending upon the proximity upper respiratory tract waste shall call for Vamana. Similarly, a lower gastro accumulation of waste calls for a Virechanam. Paschaat Karma or the post-th body's digestive and absorptive capacity to its normal state
50	**YOGA/AYURVEDA/PANCHKARMA** At Kaivalyadhama, Yoga with Ayurveda and Panchakarma offers you an integrated approach to renew and destress yourself with herbal treatments for ai believe that combining this age-old wisdom of Ayurveda with yoga promotes and maintains sustained physical and emotional health in routine life. The Ay Kaivalyadhama, begins after a personal medical consultation by an Ayurvedic doctor, depending on the condition of the patient's body. This is an in-depth gauge the level and depth of physical and emotional disturbance for planning exclusive treatments. Customised programs are thoughtfully designed for h rejuvenation. This involves beginning with internal medicinal lubrication to detach the body from toxins by any one or a combination of procedures. Therap Swedan, Shirodhara, Padyabahyanga, Nasya Basti, Karnapuran, Netrabasti, Lepa, Facial, Hrudbasti, Katibasti, Manyabasti, Sandhibandha, and so on. T incorporates your yoga practice, intake of herbal decoction teas, a select saatvik diet with supplements, massages and different therapies with medicated guests have a duration choice of a week or more for this program, a longer stay ensures enhanced benefits of Panchakarma. What is Panchakarma? Bas Panchakarma involves five procedures: Vaman / Emetics: Therapeutic vomiting, useful in cases of allergies, asthma, sinusitis, purifies respiratory tract. V blood vessels and liver troubles. Basti / Enema: Two types of enemas are possible. Introduction of decoction or oil in the rectal passage. Useful in disorde neurological problems. Nasya / Nasal Administration: Oil or medicated milk or some herbal powder is introduced in the nostrils to expel toxins from forehe sense organs. Raktamoksana / Bloodletting: Involves therapeutic bloodsucking by leeches.
51	**CLINICAL AYURVED** Ayurvedic medicine ("Ayurveda" for short) is one of the world's oldest holistic ("whole-body") healing systems. It was developed more than 3,000 years ag health and wellness depend on a delicate balance between the mind, body, and spirit. Its main goal is to promote good health, not fight disease. But treat health problems. Ayurvedic medicine ("Ayurveda" for short) is one of the world's oldest holistic ("whole-body") healing systems. It was developed more tha on the belief that health and wellness depend on a delicate balance between the mind, body, and spirit. Its main goal is to promote good health, not fight geared toward specific health problems. Ayurvedic Treatment An Ayurvedic practitioner will create a treatment plan specifically designed for you. They'll t and emotional makeup, your primary life force, and the balance between all three of these elements. The goal of treatment is to cleanse your body of und body and lead to illness. The cleansing process—called "panchakarma"— is designed to reduce your symptoms and restore harmony and balance. To ac might rely on blood purification, massage, medical oils, herbs, and enemas or laxatives.

52	**ALTERNATIVE MEDICINE** ALTERNATIVE MEDICINE: Alternative medicine is any practice that aims to achieve the healing effects of medicine, but which lacks biological plausibility proven ineffective. Complementary medicine (CM), complementary and alternative medicine (CAM), integrated medicine or integrative medicine (IM), and rebrandings that describe various ways alternative medicine is combined with mainstream medicine. Alternative therapies share in common that they resi instead rely on pseudoscience. Traditional practices become "alternative" when used outside their original settings without proper scientific explanation a derogatory terms for the alternative are new-age or pseudo, with little distinction from quackery. Some alternative practices are based on theories that co body works; others resort to the supernatural or superstitious to explain their effect. In others, the practice is plausibly effective but has too many side effe from scientific medicine, which employs the scientific method to test plausible therapies by way of responsible and ethical clinical trials, producing evidenc Research into alternative therapies often fails to follow proper research protocols (such as placebo-controlled trials, blind experiments and calculation of p results. Much of the perceived effect of an alternative practice arises from a belief that it will be effective (the placebo effect), or from the treated condition course of disease). This is further exacerbated by the tendency to turn to alternative therapies upon the failure of medicine, at which point the condition w spontaneously improve. In the absence of this bias, especially for diseases that are not expected to get better by themselves such as cancer or HIV infec significantly worse outcomes if patients turn to alternative therapies. While this may be because these patients avoid effective treatment, some alternative cyanide poisoning from amygdalin, or the intentional ingestion of hydrogen peroxide) or actively interfere with effective treatments. The alternative sector strong lobby, and faces far less regulation over the use and marketing of unproven treatments. Its marketing often advertises the treatments as being "na those offered by medical science. Billions of dollars have been spent studying alternative medicine, with few or no positive results. Some of the successfu alternative under very specific definitions, such as those which include all physical activity under the umbrella of "alternative medicine".
53	**HEALTH INFORMATICS** Health informatics is the field of science and engineering that aims at developing methods and technologies for the acquisition, processing, and study of p different sources and modalities, such as electronic health records, diagnostic test results, medical scans. The health domain provides an extremely wide tackled using computational techniques. Health informatics is a spectrum of multidisciplinary fields that includes study of the design, development and ap to improve health care. The disciplines involved combines medicine fields with computing fields, in particular computer engineering, software engineering bioinformatics, bio-inspired computing, theoretical computer science, information systems, data science, information technology, autonomic computing, a institutions, medical informatics research focus on applications of artificial intelligence in healthcare and designing medical devices based on embedded s informatics is also used in the context of applying library science to data management in hospitals.
54	**BIOINFORMATICS** Bioinformatics is a field of computational science that has to do with the analysis of sequences of biological molecules. Usually refers to genes, DNA, RN in comparing genes and other sequences in proteins and other sequences within an organism or between organisms, looking at evolutionary relationship patterns that exist across DNA and protein sequences to figure out what their function is. You can think about bioinformatics as essentially the linguistics linguistics people are looking at patterns in language, and that's what bioinformatics people do-looking for patterns within sequences of DNA or protein.

55	**MEDICAL RECORD SCIENCES AND CLINICAL INFORMATION TECHNOLOGY (MRS&CIT)** The Medical Record Departments/Services, in any modern healthcare facility, play a key role in the development and maintenance of good that is comple records of In- patients, out-patients (including emergency patients). Such medical records are essentially required to render prompt help to patients and p medical care; managing diagnostic, therapeutic and rehabilitative measures; developing hospital and patient care data for purposes of educational and re generated from the medical records is utilized as an important tool by the health authorities of a country for management of any health care institute. It wi functions of medical record professionals in providing health information in a hospital. Develop the skills necessary to fulfill these functions by acquiring a terminology, anatomy and physiology, laboratory sciences, hospital statistics etc. Become proficient in maintaining medical records on par with the curren aspects of medical records, such as the legal requirements about maintenance and retention of records and release of clinical information, morbidity and Develop an understanding of the functions performed by the other departments in a hospital which directly contribute to patient care. Understand about th application in the administration of a medical record department. Promote an appreciation of the ethical principles underlying medical practice in general a record professionals in particular.
56	**CLINICAL RESEARCH METHODOLOGY & BIOSTATISTICS** Clinical research is important to collect, analyze, present, and interpret data. It finds applications in various fields such as epidemiology, clinical trials, pop and more. Research using human volunteers (also called participants) that is intended to add to medical knowledge. There are two main types of clinical interventional studies) and observational studies. Biostatistics mainly addresses the development, implementation, and application of statistical methods i Therefore, an understanding of the medical background and the clinical context of the research problem they are working on is essential for biostatisticiar
57	**CLINICAL RESEARCH (AYURVED)** Clinical trials on Ayurveda refers to any clinical trials done on Ayurvedic treatment. Ayurveda is a traditional medicine system in India and like other cultur conventional medicine and also complementary and alternative medicine. When there are clinical trials in Ayurveda, the focus tends to be on practices in described that in India, Ayurveda is inadequately equipped to manage many modern diseases, owing to insufficient research and development. The essa Ayurveda should focus on areas outside the scope of modern medicine. Also, while there is a short history of clinical research on Ayurvedic treatments, tl available which identifies all the studies and interprets them as a whole. Educational organizations which teach Ayurveda require training if they are to de treatments. As of 2016 the Clinical Trials Registry - India contained approximately 200 records of clinical trials on Ayurvedic treatments.
58	**MEDICAL ONCOLOGY (AYURVED)** MEDICAL ONCOLOGY (AYURVED): Ayurveda is an alternative medicine system with historical roots in the Indian subcontinent. The theory and practice Indian Medical Association describes Ayurvedic practitioners who claim to practice medicine as quacks. Ayurveda is heavily practiced in India and Nepal, report using it. Ayurveda therapies have varied and evolved over more than two millennia. Therapies include herbal medicines, special diets, meditation, and medical oils. Ayurvedic preparations are typically based on complex herbal compounds, minerals, and metal substances (perhaps under the influenc rasashastra). Ancient Ayurveda texts also taught surgical techniques, including rhinoplasty, kidney stone extractions, sutures, and the extraction of foreig Ayurveda texts begin with accounts of the transmission of medical knowledge from the gods to sages, and then to human physicians. In Sushruta Samhit Sushruta wrote that Dhanvantari, Hindu god of Ayurveda, incarnated himself as a king of Varanasi and taught medicine to a group of physicians, includin adapted for Western consumption, notably by Baba Hari Dass in the 1970s and Maharishi Ayurveda in the 1980s. Some scholars assert that Ayurveda o Ayurveda developed significantly during the Vedic period and later some of the non-Vedic systems such as Buddhism and Jainism also developed medic in the classical Ayurveda texts. In Ayurveda texts, Dosha balance is emphasized, and suppressing natural urges is considered unhealthy and claimed to describe three elemental doshas viz. vta, pitta and kapha, and state that balance (Skt. smyatva) of the doshas results in health, while imbalance (viamatv

59	**BIOLOGICAL TRANSPORT PHENOMENA** The transport of heat and molecules underlies numerous important applications in biomedical engineering. A strong understanding of transport phenomer drug delivery, forensics, tissue engineering, noninvasive imaging, and the development of artificial organs. This course focuses on the fundamental conce and mass transfer, mathematical methods for solving transport problems, and ways of relating complex problems to simpler ones that illustrate key princi fluid mechanics, heat transfer, and mass transfer in living systems. Basic concepts of transport phenomena are presented and applied to biological syste devices.
60	**COMPLEMENTARY & INTEGRATED HEALTH** INTEGRATED HEALTH Integrative health is relationship-centered care that focuses on the whole person, is informed by evidence, and makes use of all healthcare professionals and disciplines to achieve optimal health and healing, including evidence-based complementary and alternative medicine. Accor Health Centers for Integrative Medicine and Health, integrative medicine is defined as the practice of medicine that reaffirms the importance of the relatio patient, focuses on the whole person, is supported by evidence, utilized all appropriate therapeutic and lifestyle approaches, healthcare professionals and and healing. TCAM includes modalities such as Ayurveda, Yoga, traditional Chinese medicine, other traditional systems of medicine, meditation, herbal m movement therapies, and other mind-body practices. The World Health Organization (WHO) now refers to this set as Traditional, Complementary and Int of common practices include: • Acupuncture. • Animal-assisted therapy. • Aromatherapy. • Dietary supplements. • Massage therapy. • Music therapy. • Me the public interest and the use of TCIM globally. Nearly 50% of the population in developed nations (United States, 42%; Australia, 48%; France, 49%; Ca numbers in developing countries (India, 70%; China, 40%; Chile, 71%; Colombia, 40%; up to 80% in Africa) use some form of TCIM. The World Health O several countries have established agencies to support research and practical utilization of TCIM Integrative health is relationship-centered care that focu by evidence, and makes use of all appropriate therapeutic approaches, healthcare professionals and disciplines to achieve optimal health and healing, in complementary and alternative medicine. According to the Consortium of Academic Health Centers for Integrative Medicine and Health, integrative medic medicine that reaffirms the importance of the relationship between practitioner and patient, focuses on the whole person, is supported by evidence, utilize lifestyle approaches, healthcare professionals and disciplines to achieve optimal health and healing. TCAM includes modalities such as Ayurveda, Yoga, traditional systems of medicine, meditation, herbal medicines, nutritional supplements, movement therapies, and other mind-body practices. The World H to this set as Traditional, Complementary and Integrative Medicine (TCIM). Examples of common practices include: • Acupuncture. • Animal-assisted ther supplements. • Massage therapy. • Music therapy. • Meditation. There has been a surge in the public interest and the use of TCIM globally. Nearly 50% o (United States, 42%; Australia, 48%; France, 49%; Canada, 70%), and similar or greater numbers in developing countries (India, 70%; China, 40%; Chile Africa) use some form of TCIM. The World Health Organization and governments of several countries have established agencies to support research and
61	**MUHS RESEARCH POLICY** MUHS Research Policy: The ‘Central Research Policy’ provides a framework for design, management and implementation of research and for developme related activities in the University and its affiliated organizations. It is aimed to inculcate the culture of research and to enhance attitude of innovation, incu research among the academic fraternity of the University. Mission • To cultivate and develop research scientists who create and apply knowledge to enha individuals and communities. • To create a conducive ecosystem for excellence in research amongst the academic and medical fraternity. Vision To Purs innovative research and education contributing to implementation of affordable systems to improve and transform health care worldwide. Values: To incul scholars: • Integrity: Maintain professional, ethical, and honest practices in all research activities. • Originality: Develop and maintain originality in researcl Excellence: Pursue the highest standards in research, teaching, and service. • Learning: Continuously evaluate and improve research through the creatio innovative ideas. • Inclusiveness: Respect cultural values and diversity, maintain dignity and respect for all, and build an environment as diverse as the ch health care. • Collaboration: Establish relationships across disciplines and the various communities being served, and incorporate multiple perspectives ir care. • Equity: Equal opportunity of participation to all involved and to be open to ideas of research from any one. • Commitment: Commitment by all to se population, regardless of differences or circumstances, and address the barriers and disparities that hinder people's ability to lead healthy lives through re

62	**DENTAL PRACTICE SOFT SKILL** These soft skills help to organize, plan and manage, and track changes during the course of the growing dental practices. However, understanding of th management, its simplicity and complexity and also, its contributing factors, helps practitioners to understand the dynamic, social and complex contexts practitioners to grow their practices implementing soft skills.
63	**DIGITAL HEALTH CARE** Digital health, or digital healthcare, is a broad, multidisciplinary concept that includes concepts from an intersection between technology and healthcare. D transformation to the healthcare field, incorporating software, hardware and services. Under its umbrella, digital health includes mobile health (mHealth) a (EHRs), electronic medical records (EMRs), wearable devices, telehealth and telemedicine, as well as personalized medicine. Digital Health Care offers s of the fastest areas of job growth. Job opportunities in Digital Health exist within many sectors including healthcare device companies, healthcare softwar health insurance, pharma companies, consulting and research organizations. Digital Health offers significant startup / entrepreneurship opportunities.
64	**EMERGENCY HEALTH CARE MANAGEMENT SKILLS** EMERGENCY HEALTH CARE MANAGEMENT SKILLS: Management of emergencies is an integral part of primary care. Being first contact care provide encounter any type of emergency. Acute attacks of asthma, myocardial infarction, anaphylactic shock, hypoglycemic coma, convulsions, head injuries an emergencies encountered by GPs. Updated knowledge, communication and procedural skills, trained paramedical staff, necessary equipment and medic organization are vital to provide optimum care which may even save lives of patients. The wide range of problems and the rarity of the problems make it d updated and competent in providing emergency care. The primary care medical center can be patient friendly by having contact details of available ambu This would help to minimize the delay in transferring a patient to the hospital. The primary care physicians can co-ordinate care by informing the hospital Then the hospital would be ready to receive the patient and crucial delays could be avoided. It's important to write a referral letter mentioning the essentia probable diagnosis (myocardial infarction), present status (blood pressure, pulse rate and rhythm), investigation findings (ECG changes), treatment admi (asthma, diabetes mellitus), treatment for co-morbidities, drug allergies and other relevant information which would be vital for the assessment, diagnosis It is extremely important to make the family and care givers aware why patient is referred and the need for prompt admission to avoid undue delays such another doctor or neglecting the problem such as mild discomfort in the chest due to myocardial infarction by a diabetic patient. Advising patients not to ta as torsion of the testis, ectopic pregnancy and to minimize physical exertion such as walking in patients having myocardial infarction are also important pa out opportunistic health promotion by displaying posters regarding symptoms of medical emergencies, features of early recognition and first aid measures should educate patients who are susceptible to emergencies such as hypoglycemic and hyperglycemic attacks about prevention, early detection of imper adopted in such situations. Attending to emergency medical problems is a responsibility of primary care doctors and they should be armed with knowledg equipment and medications to manage patients effectively which may even be lifesaving.

65	**HEALTH EDUCATION : OSTEOPOROSIS** HEALTH EDUCATION : OSTEOPOROSIS is a disease of skeletal system characterized by progressive weakening of bones leading to major fractures w Exponential growth in the global prevalence of this disease despite rapid advances in diagnostics and therapeutics have brought this disorder to the foref awareness have dragged India to miserably exist among the countries reporting high prevalence of osteoporosis and its consequent fractures. With 10 m for a dangerous upsurge of osteoporotic cases in years to come. Social conscience and responsibility have driven us to initiate a major public awareness rural areas as the population there is devoid of modes of information and technology. The objective of empowering women with knowledge to fight agains through a well-designed programme called HEATCO (Health Education and Tele-consultation on Osteoporosis). It involves BMD (Bone Mineral Density) them by telecommunication and virtual consultation to severely osteoporotic women by video conferencing. The completion of project in 51 villages till no measurable outcome but not without practical difficulties mainly due to frequent power failures, internet disconnectivity and improper locations To overcor we have recently refabricated a unique, very well designed, all pervasive osteoporosis awareness campaign van named as HEATCO van. This van is a r designed with an impressive exterior displaying text, slogans and images for understanding osteoporosis which cause everlasting impact on minds of viev exterior of van is a special point of attraction as it facilitates people to listen to me live from my hospital. The automatically emerging canopy from top of th and shelter. The interior of the van is no lesser than a fully air-conditioned exhibition hall with attractive digital images and text simplifying the understandi demonstration of course of osteoporosis on human bones is a special attraction. It has a scan machine for BMD estimation and digital images on requirer upon the BMD value. The digital information chart of sources of calcium and vitamin D makes the viewer fully knowledgeable. The special feature of the v the viewer can directly interact with me through video conferencing. All throughout her sojourn inside the van, different videos highlighting important cons TV screen distinguishing. A beautiful song specially composed on osteoporosis are mesmerises the viewers and creates an emotional impact on the min of its kind in world as it encompass all modes of education.
66	**UTILITYOF MOLECULAR GENETICS IN CLINICAL PRACTIC** The development of microarray-based comparative genomic hybridization (array CGH) methods represents a critical new advance in molecular cytogene a technical convergence between molecular diagnostics and clinical cytogenetics, questioned our naïve understanding of the complexity of the human ge medical genetics, challenged conventional wisdom related to the genetic bases of multifactorial and sporadic conditions, and is poised to impact all areas contemporary molecular cytogenetic techniques in research and diagnostics has resulted in the identification of many new syndromes, expanded our kno spectrum of recognizable syndromes, elucidated the genomic bases of well-established clinical conditions, and refined our view about the molecular mec aberrations. Newer methodologies are being developed, which will likely lead to a new understanding of the genome and its relationship to health and dis
67	**UTILITY OF CYTOGENETICS IN CLINICAL PRACTICE** The development of microarray-based comparative genomic hybridization (array CGH) methods represents a critical new advance in molecular cytogene a technical convergence between molecular diagnostics and clinical cytogenetics, questioned our naïve understanding of the complexity of the human ge medical genetics, challenged conventional wisdom related to the genetic bases of multifactorial and sporadic conditions, and is poised to impact all areas contemporary molecular cytogenetic techniques in research and diagnostics has resulted in the identification of many new syndromes, expanded our kno spectrum of recognizable syndromes, elucidated the genomic bases of well-established clinical conditions, and refined our view about the molecular mec aberrations. Newer methodologies are being developed, which will likely lead to a new understanding of the genome and its relationship to health and dis have transpired over the past 2 decades have enabled the analysis of cancer samples for genomic alterations to understand their biologic function and to practice. With the power to analyze entire genomes in a clinically relevant time frame and with manageable costs comes the question of whether we ough on the relative merits of 3 approaches to molecular diagnostics in hematologic malignancies: indication-specific single gene assays, gene panel assays th roles in cancer, and genome-wide assays that broadly analyze the tumor exomes or genomes. After addressing these in general terms, we review specifi malignancies to highlight the utility of single gene testing and/or larger panels.

68	**CHRONIC/COMPLEX INFECTIOUS DISEASES** Complex lower extremity ulcers with exposed bone, tendon, muscle, and/or joint capsule as well as multiple comorbidities including diabetes, ischemia, a difficult to heal and associated with high morbidity and mortality and high rates of amputation. A retrospective review was performed to assess healing of complex foot ulcers with a confirmed histopathological diagnosis of osteomyelitis treated by the same surgeon at a single wound care center by the follow debridement, resection of infected bone when necessary, open cortex, antibiotics, and application of cryopreserved umbilical cord (cUC). The average ul 73.95 cm2). Overall, 26 out of the 33 wounds achieved complete closure (78.8%). Five patients were lost to follow-up and one patient expired during the be treatment related. Of the remaining 27 wounds in patients not lost to follow-up, 26 achieved complete healing with an average time to healing of 16 we applications of cUC. The results suggest that cUC used as an adjunctive tissue therapy in conjunction with surgical debridement, resection of infected bo treatment may be an effective overall treatment strategy to promote wound healing of complex foot ulcers associated with osteomyelitis. The preliminary further randomized control studies to determine whether cUC might help address such an unmet medical need. Citing Literature
69	**BIOMEDICAL ENGINEERING** What Is Biomedical Engineering? Biomedical engineering is the application of the principles and problem-solving techniques of engineering to biology an healthcare, from diagnosis and analysis to treatment and recovery, and has entered the public conscience though the proliferation of implantable medical artificial hips, to more futuristic technologies such as stem cell engineering and the 3-D printing of biological organs. Engineering itself is an innovative fie everything from automobiles to aerospace, skyscrapers to sonar. Biomedical engineering focuses on the advances that improve human health and healt Engineering Different? Biomedical engineers differ from other engineering disciplines that have an influence on human health in that biomedical engineer knowledge of modern biological principles in their engineering design process. Aspects of mechanical engineering, electrical engineering, chemical engin mathematics, and computer science and engineering are all integrated with human biology in biomedical engineering to improve human health, whether i breakthrough in identifying proteins within cells. There are many subdisciplines within biomedical engineering, including the design and development of a orthopedic implants, medical imaging, biomedical signal processing, tissue and stem cell engineering, and clinical engineering, just to name a few. Reque biomedical engineer today.

70	**HEALTH TECHNOLOGY** Health technology is defined by the World Health Organization as the "application of organized knowledge and skills in the form of devices, medicines, va developed to solve a health problem and improve quality of lives".[1] This includes pharmaceuticals, devices, procedures, and organizational systems use well as computer-supported information systems. In the United States, these technologies involve standardized physical objects, as well as traditional and methods to treat or care for patients.[3] Development Pre-digital Era During a pre-digital era, patients suffered from inefficient and faulty clinical systems, medical errors happened in the past due to undeveloped health technologies.[citation needed] Some examples of these medical errors included adverse fatigue is caused when an alarm is repeatedly triggered or activated and one becomes desensitized to them. As the alarms were sometimes triggered by nurses thought the alarm was not significant. Alarm fatigue is dangerous because it could lead to death and dangerous situations. With technological dev integration and physiologic sense-making was developed and helped reduce the number of false alarms.[4] Also, with greater investment in health techno happened.[citation needed] Outdated paper records were replaced in many healthcare organizations by electronic health records (EHR).[citation needed] has brought a lot of changes to healthcare.[5] Drug administration has improved, healthcare providers can now access medical information easier, provid and save more costs.[5] Improvement To help promote and expand the adoption of health information technology, Congress passed the HITECH act as p Reinvestment Act of 2009. HITECH stands for Health Information Technology for Economic and Clinical Health Act. It gave the department of health and improve healthcare quality and efficiency through the promotion of health IT.[6] The act provided financial incentives or penalties to organizations to motiv healthcare. The purpose of the act was to improve quality, safety, efficiency, and ultimately to reduce health disparities.[7] One of the main parts of the HI use requirement, which required EHRs to allow for the electronic exchange of health information and to submit clinical information. The purpose of HITEC electronic information with patients and other clinicians are secure. HITECH also aimed to help healthcare providers have more efficient operations and r consisted of three phases. Phase one aimed to improve healthcare quality, safety and efficiency.[7] Phase two expanded on phase one and focused on c meaningful use of EHRs.[7] Lastly, phase three focused on using Certified Electronic Health Record Technology (CEHRT) to improve health outcomes.[7 electronic records in US hospitals rose from a low percentage of 10% to a high percentage of 70%.[4] At the beginning of 2018, healthcare providers who Promoting Interoperability Program needed to report on Quality Payment Program requirements. The program focused more on interoperability and aime information.[7]
71	**BIO-INSTRUMENTATION** Bioinstrumentation is the development of technologies for the measurement and manipulation of parameters within biological systems, focusing on the ap scientific discovery and for the diagnosis and treatment of disease. Examples include instrumentation for imaging, disease diagnosis, and therapeutics. T many of our faculty are engaged are the miniaturization of traditional bioinstrumentation for consideration of single cells or microscale tissues, and the ad bioinstrumentation for distribution and deployment outside traditional care environments, such as the home and resource-poor settings.
72	**RESEARCH IN AYURVEDA, UNANI & HOMOEOPATHY** Department of India Systems of Medicine and Homoeopathy (ISM&H) was created by Government of India, under the ministry of Health and Family welfa Department of Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homoeopathy (AYUSH) in November, 2003 with a view to provide focused attention to Research in Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homoeopathy system. The Directorate continued to lay emphasis on upgradation of AYU control and standardization of drugs, improving the availability of medicinal plant material, research and development and awareness generation about th and internationally. Keeping in line with the developments at the Government of India, similar departments or directorates have been established by the s AYUSH program. In the case of state of Madhya Pradesh, the directorate of AYUSH has been established under the department of AYUSH. The activitie is to promote and mainstream the AYUSH activities in the state.

73	**START UP IN AYURVEDA** Ayurveda means “Science of Life” in Sanskrit. Ayurvedic knowledge recognised as the “Mother of All Healing” and dates back over 5,000 years in India. I ancient Vedic culture, and it has been passed down the years in an oral tradition from great masters to their followers. Positive health, according to Ayurv the four-valued aims of life (chaturvidhpurushartha), namely Dharma, Artha, Kama, and Moksha. Without good health, none of these four objectives can b the top 10 Ayurvedic startups in India. Since their founding, prominent corporations like Dabur, Himalaya, Amrutanjan, Patanjali, and VICCO have ruled tl new businesses are forming and making a significant influence. Ayurveda is sold by a variety of start-up enterprises. Let’s discuss the top 10 Ayurvedic s
74	**DIGITAL HEALTH** Digital technologies are now integral to daily life, and the world’s population has never been more interconnected. Innovation, particularly in the digital sph scale. Even so, its application to improve the health of populations remains largely untapped, and there is immense scope for use of digital health solution digital technologies and health innovation to accelerate global attainment of health and the well-being The purpose for a Global Strategy on Digital Health wellbeing for everyone, everywhere, at all ages. To deliver its potential, national or regional Digital Health initiatives must be guided by a robust Strategy f organizational, human and technological resources.
75	**PATIENT CARE APPLICATIONS, SKILL, LAB, DIGITAL HEALTH** Patients have more patience, comfort with digital health Digital Sense Health care consumers are using virtual visits more than ever before, and they plar percent of respondents to Deloitte's 2020 survey of United States healthcare consumers said they were likely to have another virtual visit, even in a post-p individuals are already using technology to monitor health, and are willing to share their data. That same survey suggests these numbers will only increas Boomers reported higher levels of willingness and demand to use digital tools in service of their health. Analyze The patient-as-consumer approach is tak not only willing to engage with digital tools but expect to. Those expectations include convenience, ease-of-use, and generally satisfying experiences. Inte making these expectations a reality. If patients are increasingly willing to share their data in service of their health, healthcare institutions—hospitals, phys manufacturers, and more—should establish ways to access, share, and use that data responsibly and effectively. Lab work is one area where a significar where data technologies can be used to track test progress and empower customers and patients to control their data. Using data to connect the dots mig while also providing deeper insights to enable them to make better healthcare decisions. Health plans offer another area for innovation and improvement. revealed that they gave their members access to digital companions and devices to monitor their health. Continuous monitoring allows older adults, espe to avoid having to leave their homes. Based on data from connected digital devices, members of these health plans found virtual conversations with their beneficial to their overall health. Act Trust in physicians remains key. Even among the increased demand for convenient and satisfying digital tools, healtl clear preference for doctors who listen to / care about them, doctors who don’t rush, and clear communication. Virtual services should provide the same p person visit, particularly for organizations that are developing tools or services for those with chronic conditions, as they are most likely to value a sustain organizations could improve the virtual visit experience by training their physicians and clinicians accordingly. In Deloitte's 2020 survey of U.S. physicians improving virtual visit skills such as conveying empathy is essential but absent in their practice. Draw lessons from outside healthcare. Strategy directors healthcare companies may look to other industries (e.g., retail) to learn from effective experience and engagement strategies they could apply in their own and price transparency. Health plans administering government-sponsored programs (i.e., medical assistance, Medicaid managed care, and the health in their members with two apps that allow different applications to talk to each other: patient access application programming interfaces (APIs) and provider devices such as smartphones, members would be able to get real-time claims and encounters information, comparison of costs of treatments (i.e., price t information through third parties. In the near term, digital and interoperability initiatives might need to be enhanced to meet the deadline. In the longer ter of the highest standards of transparency and convenience as they become savvier users of digital health care tools.

76	**CLINICAL RESEARCH / OPERATIONAL RESEARCH / MEDICAL ETHICS** Ethics is an understanding of the nature of conflicts arising from moral imperatives and how best we may deal with them. Ethics in medical research deals various levels. Guidelines have been proposed for standardized ethical practice throughout the globe. The four fundamental principles of ethics which are non-maleficence, beneficence, and justice. Some special ethical issues have particular relevance to psychiatric research arising primarily from the specifi illness and the risks posed by some research methodologies. Accordingly, sensitivity is required in the design of psychiatric research. It is suggested that guidelines and the help that may be available from research ethics committees is quite great, the primary responsibility for maintaining high standards of research workers themselves.
77	**CLINICAL RESEARCH IN NETRA ROGA** American Optometric Association (AOA) defines computer vision syndrome (CVS) as “Complex of eye and vision problems related to near work, which ar computer use”. Most studies indicate that Video Display Terminal (VDT) operators report more eye related problems than non-VDT office workers. The ca visual symptoms are a combination of individual visual problems and poor office ergonomics. In this clinical study on “CVS”, 151 patients were registered treatment. In Group A, 45 patients had been prescribed Triphala eye drops; in Group B, 53 patients had been prescribed the Triphala eye drops and Sapt in Group C, 43 patients had been prescribed the placebo eye drops and placebo tablets. In total, marked improvement was observed in 48.89, 54.71 and C, respectively.
78	**MICRO DENTISTRY** Micro dentistry is an advanced dental process that allows for the treatment of tooth decay while preserving more of the tooth's structure than traditional m dental technology, like the Waterlase® dental laser, to conservatively remove decay and leave as much of the healthy areas of the tooth in place as poss When it comes to restoring dental health, the most conservative treatments are ideal, as they preserve more of the tooth's natural structure. Micro dentist dental approaches, making it popular among patients and dentists. There are many benefits of micro dentistry, including: Preserves dental strength: Micr strength by leaving more of the tooth's structure intact. Preserves healthy areas of damaged teeth: Micro dentistry can be used to target the damaged, de healthy areas and protecting dental health. Restored dental health: Micro dentistry restores dental health by removing tooth decay and damage. Allows fo provides more precision than traditional dental methods, allowing for faster, more accurate, and conservative treatment. Uses no dental drills: The specia eliminate the need for dental drills. Dental lasers are silent and don't vibrate the teeth like traditional dental drills, completely changing the dental experien Because dental drills are not used, many patients who have undergone micro dentistry find treatment to be less painful or completely pain free.

79	**ORAL IMPANTOLOGY** Oral implantology 1. ORAL IMPLANTOLOGY Dr. Saleh Bakry Assistant Professor of Oral and Maxillofacial Surgery 2. Definition: • A permanent device th and is placed on or within the bone associated with the oral cavity to provide retention and support for a fixed or a removable prosthesis. 3. I. FACTORS DENTAL IMPLANT 4. I. PREOPERATIVELY: A. Proper diagnosis: 1. Medical consideration: • Pt should be free of any systemic condition which can decr implant tissues and affect wound healing. 2. Clinical examination: • Good oral hygiene. • Adequate inter and intra-arch space. • Adequate jaw relation. • A Determination of smile line good esthetic. 5. I. PREOPERATIVELY: A. Proper diagnosis: 3. Radiographic examination: a. Periapical b. Panorama (1:1) m beam C.T • It should reveal: • Anatomy of residual alveolar process. • Good bone quality. • Away from anatomical structure (determine zone of safety). • D with the study cast length, height, and diameter. (3D diagnostics). 6. I.PREOPERATIVELY: A. Proper diagnosis: 4. Diagnostic cast: 1.Occlusal relationsh ridge relationship. 4.Tooth position morphology & overall condition. 5.Direction of forces. 6.Curves of spee & curve ofWilson. 7. I. PREOPERATIVELY: B- Prosthetic option. • Estimation of ridge width. • Surgical template. • Implant selection. • Implant type (increase surface area by using cylindrical design & u acid etching, beaded surface or TPS). • Bio-combatability. 8. I. PREOPERATIVELY: C. Patients factors: 1. Systemic factors: see contraindications. 9. II. I variation and abnormalities: • Proper assessment of location and orientation of vital structure: • Inferior alveolar nerve. • Nasal canal. • Maxillary sinus. • M 10. II. INTRA-OPERATIVE: 2. Maintain sterility: (interfere with 1st stage of osseointegration) • Operating room. • Surgical site. • Implant surface : Be sure Manufacturer error. Clinical error. Use of nonTi inst. Powder of gloves. Bacteria from oral cavity. 11. II. INTRA-OPERATIVE: 3. Surgical tech: • Adequa design and flap reflection). • Reduce hard & soft tissue trauma (no excessive pressure or heat generation during drilling more than 47°C otherwise bone r occur). • Using sharp gradual series of drill sizes with copious amount of irrigation by normal saline. • Speed 1000-1500 RPM with high torque 1/16. • Prin wrench. 12. II. INTRA-OPERATIVE: • 4. Implant positioning: • NO Over sized osteotomy. Faulty hand Position. Eccentric movement. Rapid loading of i space between: Imp. to imp.: 4 to7 mm (depend on the bone type; for dense bone should be more than 5mm) Imp. to tooth: Not < 3mm (otherwise it will 13. III. POSTOPERATIVE: 1. A.B: • Needed to prevent postoperative infection which lead to exudates, swelling and pain which will affect osseointegratio Loading: • Avoid premature placement of prosthesis gingival perforation and/or implant exposure otherwise implant mobility and lack of osseointegration implant site with poor bone quality (D3 and D4). • Avoid excessive cantilever prosthesis supported by implant which may lead to fracture of prosthesis, los facture. 15. III. POSTOPERATIVE: 3. Healing time: avoid inadequate healing time. 4. Prosthesis factors: • Passive fit during insertion of prosthesis to avo component, superstructure and bone adjacent to implant. • Proper abutment /fixture interface fit is important to decrease: • Microbial population. • Strain c bone loss. 16. III. POSTOPERATIVE: 5. Occlusion: • Balanced occlusal forces along axis of the Implant. • Avoid lateral forces and bending overload. • Th equal or slightly less than forces applied on the natural tooth. 6. Oral hygiene. 17. III. POSTOPERATIVE: 7. Follow up • Maintenance of soft tissue health Treatment of preimplantitis include: Mechanical means (ex: plastic curette, rubber cups) Chemotherapy agents. Systemic antibiotic: Citric acid,Tetracyc ADVANTAGES AND DISADVANTAGES OF DENTAL IMPLANTS 19. ADVANTAGES OF DENTAL IMPLANTS: 1. Maintenance of the alveolar ridge heig masticatory efficiency and facial esthetics. 3. Reduce the size of prosthesis by elimination of long flanges and palatal c
80	**GENETICS PUBLIC HEALTH NUTRITION** The unravelling of the human genome has the potential to radically extend many of the strategies used in public health nutrition to improve health and to i and utilization. The present paper divides nutrigenomics into two broad but differing areas in asking about possible public health applications: (1) the incre growth and global food security, on top of the already approximately 800 million of the world population who are food insecure; (2) possible responses to communicable diseases as the Western diet becomes increasingly inappropriate to the needs of those consuming it. It is clear that complex interactions c in how individuals and sub-populations respond to dietary interventions. All these applications present public health and ethical challenges, particularly in come from nutrigenomics are not restricted to the wealthy minority of only the affluent nations. The present paper concludes that the public health applica at least a decade away, especially for developing countries. Clinical applications are likely to be more immediate, probably resulting in ‘designer diets’ for polymorphisms, but unless governments take on the role of ensuring some extent of equity in access, any benefits are most likely to go to those who can treatment. At the same time, greatly increased international efforts are needed towards the continuing, and in some cases worsening, global malnutrition, unlikely to provide more than part of the solution.

81	**GENE HEALTH** Open biological data are distributed over many resources making them challenging to integrate, to update and to disseminate quickly. Wikidata is a growi can serve this purpose and also provides tight integration with Wikipedia. In order to improve the state of biological data, facilitate data management and and mouse genes, and all human and mouse proteins into Wikidata. In total, 59 721 human genes and 73 355 mouse genes have been imported from N 16 728 mouse proteins have been imported from the Swissprot subset of UniProt. As Wikidata is open and can be edited by anybody, our corpus of impo for integration of further data by scientists, the Wikidata community and citizen scientists alike. The first use case for these data is to populate Wikipedia Wikidata with the data integrated above. This enables immediate updates of the Gene Wiki infoboxes as soon as the data in Wikidata are modified. Altho only on the English language version of Wikipedia, the multilingual nature of Wikidata allows for usage of the data we imported in all 280 different langua Wiki infobox use case, a SPARQL endpoint and exporting functionality to several standard formats (e.g. JSON, XML) enable use of the data by scientists
82	**MENTAL HEALTH & WELLBEING** Indigenous people have a right to culturally responsive secure inpatient forensic mental health services (FMHS). Yet, there is a paucity of literature highli to provide an exemplar of a culturally responsive Mori minimum secure unit for the indigenous people (Mori) of Aotearoa (New Zealand). A Mori research was used to highlight the voice of tngata whai i te ora (service users), their whnau (family), and Mori kaimahi (staff), to describe life in this service. Person emphasizing developing a sense of cultural identity. This approach was attached to a focus on collective identity to enable people to gain skills to thrive w community. This was achieved through a combination of embedding Mori values and practices into daily life, coupled with a blending of culturally specific Despite the significant gains demonstrated through the development of this culturally responsive unit, challenges to progress exist. Mori leadership to the interviewed expressed resolve to navigate a solution. This exemplar provides an international impetus for cultural transformation to meet the needs of ind
83	**AYURVEDA AND YOGA IN ORTOPAEDICS MANAGEMENT** In this issue of SQUMJ, Dr. Deepali Jaju and her colleagues have shown the effects of a yoga technique known as Pranayam breathing (PB) on the pulm demonstrated that PB has different effects on healthy controls compared to those with chronic obstructive pulmonary disease (COPD). PB invoked clear pressure (MIP) in normal controls; however, PB was not able to produce MIP changes in subjects with COPD. There was however, a significant increase COPD patients, which suggested reduction in respiratory distress. While the improvements were limited, and perhaps variable in different people, it does validity in yogic intervention. In modern parlance, health care systems outside the realm of modern biomedical sciences, also termed ‘allopathic medicine medicine’. The increasing acceptance of ‘non-allopathic’ health care systems, has led to some of them have being accepted as ‘complementary and alter ‘integrative medicine’ has also emerged to describe the concurrent use of different healing systems to increase vitality, cure disease, or as integral part of prevention of diseases.
84	**DRUG TESTING LABORATORY** Drug testing laboratories certified by the Department of Health and Human Services receive urine specimens and test them to determine the presence of testing to determine if the specimen has been adulterated or substituted. A laboratory located in the U.S. is only permitted to participate in DOT drug testi the National Laboratory Certification Program (NLCP) or in the case of a foreign laboratory, if it is approved for participation by the DOT with respect to P the HHS-Certified Laboratories list are permitted to participate in the DOT drug testing program. HHS-Certified Instrumented Initial Testing Facilities are testing program. The statutory and other major functions of the laboratory include: Analysis of Drugs and Pharmaceuticals, Cosmeitcs and Medical Devic Director, CDTL mumbai Acts as âAppellate Authorityâ as per Drugs & Cosmetics Act, 1940 for the testing of Copper T and Tubal Rings (Intrauterine Cor Import drugs & Cosmetics samples entering through the port offices. Analysis of Registration samples for approval of site registration as per GMP. Analys manufactring the same. Analysis of Drugs & Pharmaceutical formulations received as Survey Samples from Central Drugs Standard Control Organizatio Drugs & Pharmaceuticals formulations received as national Survey samples from CDSCO or other offices under Ministry of Health & Family Welfare Impa deputed by the Government laboratories form time to time. To undertake anlytical research on standaridization and methodology of Drugs.

85	**PUBLIC HEALTH** Public health is "the science and art of preventing disease, prolonging life and promoting health through the organized efforts and informed choices of soc private, communities and individuals".[1][2] Analyzing the determinants of health of a population and the threats it faces is the basis for public health.[3] T handful of people or as large as a village or an entire city; in the case of a pandemic it may encompass several continents. The concept of health takes in and social well-being.[1][4] Public health is an interdisciplinary field. For example, epidemiology, biostatistics, social sciences and management of health important sub-fields include environmental health, community health, behavioral health, health economics, public policy, mental health, health education, disability, oral health, gender issues in health, and sexual and reproductive health.[5] Public health, together with primary care, secondary care, and tertia health care system. Public health is implemented through the surveillance of cases and health indicators, and through the promotion of healthy behaviors include promotion of hand-washing and breastfeeding, delivery of vaccinations, promoting ventilation and improved air quality both indoors and outdoors, cessation, obesity education, increasing healthcare accessibility and distribution of condoms to control the spread of sexually transmitted diseases. There health care and public health initiatives between developed countries and developing countries, as well as within developing countries. In developing cou are still forming. There may not be enough trained healthcare workers, monetary resources, or, in some cases, sufficient knowledge to provide even a ba prevention.[6][7] A major public health concern in developing countries is poor maternal and child health, exacerbated by malnutrition and poverty couple implementing public health policies. From the beginnings of human civilization, communities promoted health and fought disease at the population level.[societies, interventions designed to reduce health risks could be the initiative of different stakeholders, such as army generals, the clergy or rulers. Great development of public health initiatives, beginning in the 19th century, due to the fact that it was the first modern urban nation worldwide.[10] The public h initially focused on sanitation (for example, the Liverpool and London sewerage systems), control of infectious diseases (including vaccination and quara various sciences, e.g. statistics, microbiology, epidemiology, sciences of engineering.[10]
86	**DRUG ANALYSIS** Instrumental methods are widely used for the analysis and stability studies of compounds in bulk and pharmaceutical forms. They vary in their sensitivity, This chapter will overview those different techniques and the application of the analytical methods. It will also describe how to design and develop simple routine quality control of specified compound depending on its molecular structure. Quality control and assurance of the analytical process will be discuss describe a number of factors affecting the chemical and physical stability of Pharmaceutical formulations and how to develop stability-indicating methods degradation. Drug discovery and development process can be divided into two major stages: drug discovery which involves isolation of the active constitu second major stage, drug development, starts with a solitary compound, which at that point progresses through different studies intended to support its e new drug will then be formulated as an appropriate pharmaceutical dosage form. Pharmaceutical product is medicine intended for human or veterinary us diagnosis of disease. The use of ineffective, harmful or poor-quality drugs will cause health hazards and waste of funds. The problem is aggravated by ac drug supply system (including storage and transport). These lead to deterioration of drug quality, loss of activity and may be formation of harmful degrada must that any pharmaceutical product should be subjected to different analytical procedures in order to ensure its efficacy and safety. Therefore, an effec assessment system should be developed and maintained.
87	**COSMETIC TECHNOLOGY** GMPI Faculty Of Cosmetic Technology, set-up as a constituent faculty of Institute of Good Manufacturing Practices India (IGMPI), registered as a non-pr Registration Act, 1860) with Government of India is dedicated for providing education and training on all aspects of Cosmetic Technology. The Faculty of brilliant, dynamic faculty members trained in various top industries possessing cutting edge technical expertise/skills and dedicated to teaching and resea programmes in Cosmetic Technology. The cosmetics industry is among the largest and fast progressing industries in India and abroad. Hence, every yea imperatively required in every small to big companies in these industrial sectors. These Diploma programmes in cosmetic technology enables participants promotions in the fields of cosmetics, perfumeries, toiletries, etc., as supporting staff or assistants to cosmetic scientists/technologists and perfumers. Em technological aspects associated with this industry. Cosmetic Technology is a demanding field requiring technical, entrepreneurial & communication skills portions in sales marketing, research & development, production and quality control as well as in administration & management.

88	**AYURVED AND PANCHKARMA TREATMENT** Indian Ayurveda has given the world a considerable measure of things. These things have changed the way individuals live and they have made the prog ailments to the world perfectly fit and healthy. The significance of Ayurveda is tremendous and it is without a doubt the main practice with regards to alter the most eminent branch of Ayurveda is Panchakarma. The name Panchakarma literally means "Five Actions" which is well-suited given the fact that this basic activities that control the body namely Vomiting, Purgation, Niruham, Anuvaasan, and Nasyam. In other words, Panchakarma healing technique is a techniques stand. Panchakarma works best with the utilization of medicated oils that helps in eliminating the impurities from the human body. Panchakarı Ayurvedic values and it lives up to its reputation. Oleation: Oleation includes use of oil or oily substance on the body. Ayurveda offers different oils made f ingredients mostly for external use. Aside from oils and ghee utilized especially for internal application. The fatty substance goes about as a viable mediu more profound tissues, helps in carrying the medicinal ingredients every cell of the body and loosen up toxins stuck in the cells. Fomentation: Thetreatme fomentation treatments. Oleation treatments are followed by the fomentation treatments. The tissues made delicate by oleation treatments become more Profound established toxins relaxed by oleation melt because of fomentation therapy and help it to flush out of the body. Benefits Of Panchakarma Comp toxins Speeding up the metabolism Reducing weight Enhancing the strength of digestive fire Opening up of blocked channels Relaxing the mind and bod Immunity Relieves stress Five Panchakarma Therapies Vaman Virechan Basti Nasya Raktamokshan Vaman: In this treatment, a patient is given inside a treatments for few days which includes therapies and some ayurvedic medicines. Once the toxins get melted and accumulate in upper cavities of body, th and decoction. This enables vomiting and helps in disposing of the poisons from the body tissues. Vaman treatment is particularly suggested basically for as weight gain, asthma and hyperacidity. Virechan: In virechan, purgation or disposal of toxins happens through the clearing of the bowels. In this treatme outside oleation and fomentation treatments. From that point onward, the patient is given a natural purgative to encourage clearing of the guts that aides Virechan treatment is prescribed fundamentally for pitta -dominated conditions, such as herpes zoster, jaundice , colitis, celiac infection etc. Basti: Manag enema is Ayurveda's exceptional commitment to the therapeutic world. The treatment has huge advantages, particularly in convoluted and chronic diseas disease, home grown decoctions, oils, ghee or milk are managed into the rectum and this has incredible positive effects. This treatment is to a great degr conditions, such as arthritis, piles and constipation. Nasya: This treatment is extremely effective in clearing and purging the head area. At the beginning o shoulder areas are given a delicate massage and fomentation. After that, nasal drops are regulated in both the nostrils. This achieves the cleaning of the different sorts of cerebral pain, headache, hair issues, sleep disorder, neurological disorders, sinusitis, chronic rhinitis and respiratory ailments. Raktamok cleaning of blood and viable against ailments caused because of impure blood. It can be done in a particular area or for the whole body. This treatment is infections, such as psoriasis, dermatitis , and furthermore in local lesions such as abscesses and pigmentation.
89	**COMMUNICATION AND LEADERSHIP SKILLS** This chapter examines the opportunities and barriers of promoting students' learning skills, including communication, cooperation, collaboration and conn blackboard platform. A Wiki tool was implemented in two postgraduate units in an Australian university to develop and improve students' professional and leadership, time management, problem-solving and decision-making. A Wiki tool becomes essential in teaching and learning, to promote students' skills, access to knowledge, cutting-edge technology and news nationally and internationally. To implement this for students in developed and developing count education sector must recognize and achieve the Millennium Development Goals (MDG) which were signed by 189 United Nation member states in Sept which is related to education. This chapter provides empirical evidence, gathered through mixed methods, from 88 students who have been exposed to W feedback indicates that the use of Wiki in the higher education setting is valuable and gratifying as it enables students to develop and enhance several sk collaboration, interpersonal, writing, reading, and search/research, problem-solving and decision-making, all of which are required for both their current st world workplace.

90	**BASIC PROCEDURES IN OPHTHALMOLOGY** We provide a comparative analysis of the references to books in two free online encyclopedias that have very different philosophies about authorship and the nature and academic respectability of the books they list. These encyclopedias are the loosely edited, non-refereed Wikipedia, where anonymous aut uncertain, compile the reference list and where many equally anonymous readers can later alter the reference lists, and its peer-reviewed companion Sch articles by invited experts who control its reference lists. We compared 47 entries dealing with the brain or behavioral sciences that had exactly matching book references overall, the age of these references, and those titles that were multiply cited, either through citations in both online encyclopedias or mult compare the percentages of book references allotted to matching subject categories. We note the distributions of references according to book publishers high-level research volumes versus introductory textbooks and popularizations. Finally, we examine the credentials of the authors of the cited works, prov and disciplines in which their authors or editors received their doctoral degrees and their most current academic or professional affiliation. We conclude th carefully matched set of entries in the brain and behavioral sciences, both encyclopedias offer references to solid materials and that any differences in qu degree rather than any clear-cut advantage that is exclusive to one or the other.
91	**ADVANCES IN OPHTHALMOLOGY** The purpose of this article is to summarize the resurgence in interest to prolong and improve drug entry from topical administration. These approaches in polymer vehicles, transporter-targeted prodrug design, receptor-targeted functionalized nanoparticles, iontophoresis, punctal plug and contact lens delive systems might be useful in treating diseases affecting the back of the eye. Their effectiveness will be compared against intravitreal implants (upper bound systems (lower bound of effectiveness). Refining the animal model by incorporating the latest advances in microdialysis and imaging technology is key to the design, testing and evaluation of the next generation of innovative ocular drug delivery systems.
92	**INTRODUCTION TO HEALTH CARE** Health care, or healthcare, is the improvement of health via the prevention, diagnosis, treatment, amelioration or cure of disease, illness, injury, and other people. Health care is delivered by health professionals and allied health fields. Medicine, dentistry, pharmacy, midwifery, nursing, optometry, audiology, physical therapy, athletic training, and other health professions all constitute health care. It includes work done in providing primary care, secondary care, health. Access to health care may vary across countries, communities, and individuals, influenced by social and economic conditions as well as health po means "the timely use of personal health services to achieve the best possible health outcomes".[3] Factors to consider in terms of health care access inc insurance coverage), geographical and logistical barriers (such as additional transportation costs and the possibility to take paid time off work to use such and personal limitations (lack of ability to communicate with health care providers, poor health literacy, low income).[4] Limitations to health care services services, the efficacy of treatments, and overall outcome (well-being, mortality rates). Health systems are organizations established to meet the health ne According to the World Health Organization (WHO), a well-functioning health care system requires a financing mechanism, a well-trained and adequately on which to base decisions and policies, and well-maintained health facilities to deliver quality medicines and technologies.

93	**REVIEW OF CLASSICAL HOMEOPATHIC LITERATURE WITH PRACTICAL TRAINING OF CASE MANAGEMENT IN OPD & IPD SECTIONS.** Complementary and alternative medicine is increasingly evaluated from an evidence-based medicine perspective which includes clinical trials. It was unc represented clinical practice and assessed treatments as given in the real world. Attention deficit hyperactivity disorder (ADHD) and homeopathy were ex clinical trials versus daily practice. Objectives: Evaluate, contrast and compare the homeopathy as practiced within research trials with the approach adop practice as a treatment for children diagnosed with ADHD. Methods: An explicitly mixed methods approach based in Grounded Theory spanning quantita techniques was adopted for this project. Data elements included a systematic review, individual patient data meta-analysis, practitioner survey, in-depth i Each method was rigorously implemented and analysed according to best practice; the results were then synthesised to develop an explanatory model. F analyses suggest there is little reliable evidence in favour of homeopathy for the treatment of ADHD, the trials conducted to date do not appear to have re The diversity of practice observed presents unique challenges for researchers who wish to improve the evidence base. A model of homeopathy as a proc starting point for documenting observational studies and developing realistic evaluations, and an outline of a future comparative trial is provided.
94	**SKILL DEVELOPMENT OF BUDDING HOMEOPATHS IN PRACTICAL CLNICAL DIMENTION** Homeopathy is widely used and broadly accepted by health care professionals and the general public but less in academic circles. To assess possible m medicinal products, it is necessary to identify, select, and synthesize the findings of recent reviews of controlled homeopathic clinical trials. Matching thes from toxicological studies helps to clarify what is known and not known about the material risks of homeopathic medicines. Rules for toxicological risk ass be applied independently of individual attitudes towards specific therapeutic options. European regulatory bodies have developed special protocols and d nonindividualized homeopathic remedies. This narrative review leads to suggestions that could ease and improve toxicological decision making. No home side effects could be extracted from the meta-analysis data. No differences in the frequency of adverse reactions between homeopathic treatment and pla matter whether adverse events were reported in a quantitative or a qualitative manner. Some patterns of side effects show that adverse reactions do not but with the condition of the patient.
95	**UNDERSTANDING THE DNA SEQUENCING, SEQUENCE ANALYSIS AND PHYLOGENETIC ANALYSIS** Phylogenetic hypotheses using whole genome sequences have the potential for unprecedented accuracy, yet a failure to understand issues associated w sampling, and strain sampling can lead to highly erroneous conclusions. For microbial pathogens, phylogenies derived from whole genome sequences ar numbers of characters distributed across entire genomes can yield extremely accurate phylogenies, particularly for strictly clonal populations. The availab as new sequencing technologies reduce the cost and time required for genome sequencing. Until entire sample collections can be fully sequenced, harne whole genome sequences in more than a small subset of fully sequenced strains requires the integration of whole genome and partial genome genotypin discovering evolutionarily stable polymorphic characters by whole genome comparisons, then determining allelic states across a wide panel of isolates us technologies. Here, we demonstrate how such an approach using single nucleotide polymorphisms (SNPs) yields highly accurate, but biased phylogeneti accuracy of the resulting tree is compromised by incomplete taxon and character sampling.
96	**EMERGENCY MEDICAL & TRAUMA CARE** A large proportion of trauma patients in developing countries do not have access to formal Emergency Medical Services. We sought to assess the efficac existing, although informal, system of prehospital transport in Ghana. In that country, the majority of injured persons are transported to the hospital by sor as a taxi or busA total of 335 commercial drivers were trained using a 6-hour basic first aid course. The efficacy of this course was assessed by comparin care provided before versus after the course, as determined by self-report from the driver

97	**ANAESTHESIA** In the last decade, capnography has developed from a research instrument into a monitoring device considered to be essential during anaesthesia to ens comprehensive understanding of capnography has become mandatory for the anaesthetist in charge of patients in the operating room and in the intensiv capnography includes the methods available to determine carbon dioxide in expired air, and an analysis of the physiology of capnograms, which are follo applications of capnography in clinical practice. The theoretical backgrounds of the effect of barometric pressure, water vapour, nitrous oxide and other fa accuracy of CO2 determination by the infra-red technique, currently the most popular method in use, are detailed. Physiological factors leading to change discussed together with the clinical uses of this measurement to assess pulmonary blood flow indirectly, carbon dioxide production and adequacy of alve understanding the shape of the capnogram as well as end-tidal carbon dioxide measurements is emphasized and its use in the early diagnosis of adverse disconnections, oesophageal intubation, defective breathing systems and hypoventilation is highlighted. Finally, the precautions required in the use and in presented with the caveat that although no instrument will replace the continuous presence of the attentive physician, end-tidal carbon dioxide monitoring detection of anaesthesia-related intraoperative accidents.
98	**ABDOMINAL EXAMINATION IN PANCHABHAUTIK CHIKITSA** Datar Shastri adopted the process of diagnosis inPanchabhautik chikitsa through a special technique called Nada pariksha. Nada parikshais percussion addition to the famousNadi Pariksha or pulse diagnosis. In sound examination, abdominal sounds are examined on the basis of the properties of increase (five elements) in the body giving rise to a specific symptom of a disease. Panchabhautik chikitsa is an easy method to heal chronic diseases successfully primary importance is given to Udara Pariksha or abdominal examination. The liver (Yakrita), spleen (Pleeha) and kidneys (Mutrapinda or Vrikka) is also
99	**MEDICINES PREPARATION IN PANCHABHAUTIK CHIKITSA** Datar Shastri adopted the process of diagnosis inPanchabhautik chikitsa through a special technique called Nada pariksha. Nada parikshais percussion addition to the famousNadi Pariksha or pulse diagnosis. In sound examination, abdominal sounds are examined on the basis of the properties of increase (five elements) in the body giving rise to a specific symptom of a disease. Panchabhautik chikitsa is an easy method to heal chronic diseases successfully primary importance is given to Udara Pariksha or abdominal examination. The liver (Yakrita), spleen (Pleeha) and kidneys (Mutrapinda or Vrikka) is also
100	**RESEARCH METHODOLOGY & YOGA** This article addresses the under-researched, but very popular activity of yoga in contemporary Britain and attempts a preliminary sociological exploration yoga practitioners. A sample of dedicated practitioners of the Iyengar method of yoga was chosen for a case study. It was found that the sample practitio attracts a significant number of people interested in a type of ‘spiritual exploration’ that can probably be best explained by the concept of ‘mystical religion and developed by Colin Campbell. These findings provide new salience to the idea of ‘mystical religion’ and a starting point for considering the role that a contemporary spirituality and religiosity.
101	**INTRODUCTION TO EMERGENCY HEALTHCARE** Ambient (outdoor) air pollution is now recognized as an important problem, both nationally and worldwide. Our scientific understanding of the spectrum of increased, and numerous studies are finding important health effects from air pollution at levels once considered safe. Children and infants are among the pollutants. In addition to associations between air pollution and respiratory symptoms, asthma exacerbations, and asthma hospitalizations, recent studies pollution and preterm birth, infant mortality, deficits in lung growth, and possibly, development of asthma. This policy statement summarizes the recent lite adverse health outcomes in children and includes a perspective on the current regulatory process. The statement provides advice to pediatricians on how quality and health into patient education and children's environmental health advocacy and concludes with recommendations to the government on promo to ensure protection of children's health.

102	**AYURVEDIC MANAGEMENT OF NETRA ROGA** The main sensations obtained from the sensory organs are the taste, fragrance, vision, sound, and touch. From these senses, the vision is very importan located in head region. Any disturbances to this area lead for the mismanagement of day to day activities. Mahasneha is widely used in the management has Snigdakaraka, Jeevana hita, Varnakaraka and Bala-pushti Vardhaka Guna. Grtha, Taila, Vasa and Majja are the four types of Mahasneha. The aim c used drug and its qualities among Chatur Sneha in treating Netra Roga. This study was carried out as a literary review. The study consisted of two steps. Bruhattrayee, while secondary study was done to nd out the values and qualities of widely used Maha sneha and to understand the rationale behind Mah Roga. Ayurveda and modern books and World Wide Web were used to collect secondary data. In Akshi Roga Cikitsa, according to Carakasamhita, there Grita.
103	**CLINICAL APPROCH TO AYURVEDIC PRINCIPLES** Ayurveda is a science of life with a holistic approach to health and personalized medicine. It is one of the oldest medical systems, which comprises thous hypothesis. Interestingly, Ayurveda has ability to treat many chronic diseases such as cancer, diabetes, arthritis, and asthma, which are untreatable in mo lack of scientific validation in various concepts, this precious gift from our ancestors is trailing. Hence, evidence-based research is highly needed for globa Ayurveda, which needs further advancements in the research methodology. The present review highlights various fields of research including literary, fun clinical research in Ayurveda. The review further focuses to improve the research methodology for Ayurveda with main emphasis on the fundamental rese encourage young researchers to work on various areas of research for the development and promotion of Ayurveda.
104	**HOLISTIC HEALTH CARE** Holistic healthcare is complete or total patient care that considers the physical, emotional, social, economic, and spiritual needs of the person, his or her r the illness on the ability to meet self-care needs. People with intellectual and developmental disabilities (IDD), frequently experience clinical comorbidities range of disciplines, access a range of long term services and supports, and rely on an array of natural supports for their emotional, social and other neec coordination and integration of care that will promote improved health outcomes, improved patient satisfaction and reduced healthcare costs. Holistic hea multidisciplinary, coordinated whole-person care for people with IDD and seeks optimal quality of life as a principle patient outcome
105	**REPRODUCTIVE HEALTH** Male reproductive health has deteriorated in many countries during the last few decades. In the 1990s, declining semen quality has been reported from B Britain. The incidence of testicular cancer has increased during the same time incidences of hypospadias and cryptorchidism also appear to be increasing occur in many wildlife species. There are marked geographic differences in the prevalence of male reproductive disorders. While the reasons for these di clinical and laboratory research suggest that the adverse changes may be inter-related and have a common origin in fetal life or childhood. Exposure of th estrogens, such as diethlylstilbestrol, can result in the above-mentioned reproductive defects. The growing number of reports demonstrating that commor natural factors possess estrogenic activity presents the working hypothesis that the adverse trends in male reproductive health may be, at least in part, as or other hormonally active (e.g., antiandrogenic) environmental chemicals during fetal and childhood development. An extensive research program is nee problem, its underlying etiology, and the development of a strategy for prevention and intervention.
106	**LITERARY RESEARCH** Citation studies have been concerned primarily with the properties of cited workds. The analysis of citation functions is undoubtedly more complex than th research processes. A key problem in such an analysis is the design of categories to be used to classify citation functions. A few schemes have been cre functions in scientific publications. This article examines these schemes and considers differences in research methods between scientific and humanistic influence on citation practices. A scheme for the classification of citations in literary research is proposed as a preliminary model. Findings are presented this scheme to a sample of publications in German literary research.

107	**RESEARCH AYURVEDIC COSMETOLOGY & TRICHOLOGY** Hair have had its share in the aesthetic value since ages. With the modernization and increasing importance to the face value, hair care and hair beauty i Hair is a symbol of beauty and self-confidence. From the ages, human beings want to look beautiful. There are many references in classics and history b beautification and maintenance of beauty. Ayurveda teaches that beauty, health and a happy long life are achievable only by understanding how all aspe to the body and mind. In Ayurveda inner and outer beauty are intimately related. Outer beauty is what we most commonly consider as the field of beauty. of the body, texture of the skin, and the quality of the hair. Nice and good-looking long hair makes a person mentally confident and healthy indeed. Tricho modern medicine which works on hair problems.
108	**PREVENTIVE CARDIOLOGY** Preventive cardiology is a specialty of cardiology that helps you manage heart disease risk factors before they get worse. Cardiology is a branch of intern heart and blood vessels. So, preventive cardiology focuses on early prevention to keep your heart and blood vessels healthy. It's a form of preventive me your health and well-being. You may already see a cardiologist for heart checkups. You'd keep seeing your cardiologist if you join a preventive cardiology and advice from providers in many different specialties. That's because preventive cardiology takes a whole-body approach to caring for your heart. Your players. They work with your kidneys, endocrine system and many other "players" to keep your body going strong. But when one of the players gets injur help. So, a heart problem might put more work on your kidneys. Or a hormonal imbalance might lead to high blood pressure and more stress on your arte
109	**MEDICAL ONCOLOGY, RADIOTHERAPY, PALLLATIVE CARE** Radiotherapy is a successful, time-efficient, well-tolerated, and cost-effective intervention that is crucial for the appropriate delivery of palliative oncology and palliative goals is blurred in many patients with cancer, requiring that treatments be chosen on the basis of factors related to the patient (ie, poor perf significant weight loss, severe comorbid disease), the cancer (ie, metastatic disease, aggressive histology), or the treatment (ie, poor response to system Goals may include symptom relief at the site of primary tumor or from metastatic lesions. Attention to a patient's discomfort and transportation limitations when feasible. Innovative approaches include rapid response palliative care clinics as well as the formation of palliative radiotherapy specialty services in providing better definitions of appropriate palliative radiotherapy interventions, and bone metastases fractionation has become the first radiotherapy quali Quality Forum. Further advances in the palliative radiation oncology subspecialty will require integration of education and training between the radiothera
110	**CARDIOLOGY, INTENSIVE CARE** Patients with acute heart failure (AHF) require urgent in-hospital treatment for relief of symptoms. The main reason for hospitalization is congestion, rathe congestion is associated with a poor prognosis, many patients are discharged with persistent signs and symptoms of congestion and/or a high left ventric suggest that a pre-discharge clinical assessment of congestion is often not performed, and even when it is performed, it is not done systematically becau prior to discharge has been validated. Grading congestion would be helpful for initiating and following response to therapy. We have reviewed a variety of which should be considered in the care of patients admitted with HF. We propose a combination of available measurements of congestion. Key elements include bedside assessment, laboratory analysis, and dynamic manoeuvres. These strategies expand by suggesting a routine assessment of congestion A point system is used to quantify the degree of congestion. This score offers a new instrument to direct both current and investigational therapies design and after hospitalization. In conclusion, this document reviews the available methods of evaluating congestion, provides suggestions on how to properly p proposes a method to quantify the amount of congestion present.

111	**MINOR ORAL SURGERY (MOS)** MINOR ORAL SURGERY (MOS) Introduction : Dental anxiety can hinder the care and management of a patient. Music has been used in various fields o patients. Aims : To study patient response to music during minor oral surgery (MOS), measured quantitatively and by recording physiological parameters. instrumental music was played for the patient via earphones during MOS treatment. Both physiological and psychological measures of anxiety were reco patient completed questionnaires and a subjective ten-point anxiety score. Results : Overall, the data show positive results for music and patient experier decrease over the duration of treatment, the majority of patients reported music reduced their anxiety levels (92%) and pain and discomfort. Almost half o music made communication with the dental team easier and 90% of patients reported that they would request to have music playing during their next den
112	**INDUSTRIAL METHODS OF AYURVEDIC DRUG MANUFACTURE** Research & Development in the field of AYUSH system in different areas such as drug development including quality assurance, pre-clinical safety evalu conducted at different levels such as Research Council under AYUSH, Academic institutions (both AYUSH and non AYUSH institutes such as Medical C Research organization such as ICMR, CSIR etc. Further, research support is also being extended through grant under EMR vide Ministry of AYUSH, DS traditional medicine. Lot of research is being conducted at different levels as above in the field of AYUSH adopting different guidelines, methods and prot outcomes with low or poor translational value. Only few of them have led to clinical trial and marketing level. This may be attributed to lack of awareness and provisions of Drug & Cosmetic Act related to AYUSH. In spite of availability of several guidelines such as GCP guidelines for ASU drugs, ICMR guide human participants, GCP guidelines published by CDSCO Ministry of Health and Family Welfare, WHO guidelines for traditional medical research etc., th directive to conduct research in AYUSH sector is available.
113	**THERAPEUTIC YOGA IN CLINICAL PRACTICE** Medical yoga is defined as the use of yoga practices for the prevention and treatment of medical conditions. Beyond the physical elements of yoga, whic strengthening the body, medical yoga also incorporates appropriate breathing techniques, mindfulness, and meditation in order to achieve the maximum that yoga can positively impact the body in many ways, including helping to regulate blood glucose levels, improve musculoskeletal ailments and keeping also has been shown to have important psychological benefits, as the practice of yoga can help to increase mental energy and positive feelings, and dec aggressiveness, depression and anxiety.
114	**BASIC IN OPHTHALMOLOGY** To conclude, for me, this has really been a trabalho do coracao a phrase which does not have a correct synonym in English but when literally translated f of the heart". In truth, it is a vivid reflection of my long lasting concern and affection for my students. All books are collaborative efforts and I would like to people who have advised and encouraged me in this project: specially my husband Shri Ajit Jogi, my son Aishwarya, Amit and Dr Nidhi Pandey. I offer sp Vij, Chairman and Managing Director of M/s Jaypee Brothers Medical Publishers (P) Ltd., Mr Tarun Duneja, Director (Publishing) and his staff namely Mr Mr Arun Sharma, Mr Akhilesh Kumar Dubey and Mrs Seema Dogra. By the grace of the Almighty God and with the continuing support of the teachers, I a updated edition of my book.
115	**SMRUTI AYURVED** Smruti Ayurved is specially designed protocol by Dr.Harish Patanakr. Smruti Ayurveda works on Smruti through different perspective. Around 10,000 s this project since 2012. This speciality branch which works on Ashta Dnyandevata and Smruti using Ayurveda.

116	**BASIC DENTAL IMPLANTOLOGY** Over the past decades, implant dentistry has evolved to be a very predictable treatment modality for the replacement of lost teeth and has now become o procedures carried out worldwide. This chapter introduces the history and evolution of dental implants, discusses the concept of osseointegration, mentio discusses clinical decision making and execution of straight forward implant placement. It must be noted that the field of implantology is rapidly developin increasing use of digital technology. The surgical part of implant treatment although extremely important, is only a part of the overall treatment, the other i and prosthodontics. This chapter only provides a basic surgical overview of implantology for the beginner surgeon clinician.
117	**MEDICAL DEVICE INNOVATION** Medical innovation touches every individual on the planet. It promises new ways to prevent, diagnose and monitor health problems, as well as new drugs diseases. Medical innovation also means increasing knowledge and transforming existing process and business models to better serve changing needs a intelligence, and other technologies are fueling a wave of health innovations around the world. In this web story we highlight insights and cases from the (future of medical innovation.
118	**TRIBAL HEALTH RESEARCH** About a half of the autochthonous people of the world with about 635 tribal groups and subgroups including 75 primitive tribes live in India. The state of O the tribal map of India having 62 scheduled tribes including 13 primitive tribes with a population of over 8.15 million constituting 22.3% of the population o There is a paucity of comprehensive health research among the tribal populations of India. Most of the studies are isolated and fragmentary in nature. Th area specific, tribe specific, action oriented health research in consonance with the felt needs of the tribal communities. The research should be mission o and directed towards improving the quality of life of tribal people. The health scenario of tribes of Orissa presents a kaleidoscopic mosaic of various comn diseases in consonance with socio-economic developments in the state. The wide spread poverty, illiteracy, malnutrition, absence of safe drinking water a maternal and child health services, ineffective coverage of national health and nutritional services, etc. are the major contributing factors for dismal health
119	**NUTRITION IN HEALTH & DISEASES** Movement and nutrition play a pivotal role in the promotion of long-term health and the prevention of chronic disease. Obesity and physical inactivity are a premature death, while lifestyle factors such as exercise and healthy eating can reduce the risk of becoming obese and developing related diseases. Mov able to assist in the prevention and therapy of chronic diseases. Regular physical activity and better dietary choices are effective means of extending not Healthy nutrition is important throughout life, and diet is the most important risk factor of illness worldwide. Moreover, childhood obesity has become a glo mass index and high fasting plasma glucose contribute substantially to the rising burden of disease, they also provide promising opportunities for interver suggests vital relationships between nutritional quality and mental health. Approaches tackling dietary improvements include community-based health pro mass media campaigns, open online platforms and policies sanctioning unhealthy food choices. The high prevalence of sedentary behavior and physical leading cause of death worldwide. The extensive health benefits of a physically active lifestyle are well established. Exercise is a viable way to help preve diseases, and an increase in physical activity could markedly improve health worldwide. A challenge in this context is the promotion of an active lifestyle, adherence to effective exercise and sport programs.

120	**DIAGNOSTICS** In order to support the operation of ITER and the planned experimental programme an extensive set of plasma and first wall measurements will be requir measurements will be similar to those made on the present-day large tokamaks while the specification of the measurements—time and spatial resolution stringent. Many of the measurements will be used in the real time control of the plasma driving a requirement for very high reliability in the systems (diagr measurements. The implementation of diagnostic systems on ITER is a substantial challenge. Because of the harsh environment (high levels of neutron a particle bombardment) diagnostic system selection and design has to cope with a range of phenomena not previously encountered in diagnostic design. I to prepare the systems. In some cases the environmental difficulties are so severe that new diagnostic techniques are required. The starting point in the d is to define the measurement requirements and develop their justification. It is necessary to include all the plasma parameters needed to support the basi active control) of the device, machine protection and also those needed to support the physics programme. Once the requirements are defined, the appro techniques can be selected and their implementation onto the tokamak can be developed. The selected list of diagnostics is an important guideline for ide development needs in the area of ITER diagnostics.
121	**SCIENTIFIC INSTRUMENT** A sample of one hundred and eleven scientific instrument innovations was studied to determine the roles of instrument users and instrument manufacture culminated in the successful commercialization of those instruments. Our key finding was that approximately 80% of the innovations judged by users to o functional utility were in fact invented, prototyped and first field-tested by users of the instrument rather than by an instrument manufacturer. The role of th the innovative instrument in all such cases was restricted, we found, to the performance of product engineering work on the user prototype (work which in 'manufacturability', and convenience of operation, while leaving its principles of operation intact) and to the manufacture and sale of the resulting innovati provides the interesting picture of an industry widely regarded as innovative in which the firms comprising the industry are not in themselves necessarily i innovations sampled — only provide the product engineering and manufacturing function for innovative instrument users.
122	**INTEGRATIVE ONCOLOGY** Background : Integrative oncology, which is generally understood to refer to the use of a combination of complementary medicine therapies in conjunctior treatments, has been defined in different ways, but there is no widely accepted definition. We sought to develop and establish a consensus for a compreh integrative oncology. Methods : We used a mixed-methods approach that included a literature analysis and a consensus procedure, including an interdisc develop a comprehensive and acceptable definition for the term "integrative oncology." Results : The themes identified in the literature and from the expe two-sentence definition. Survey respondents had very positive views on the draft definition, and their comments helped to shape the final version. The fin is: "Integrative oncology is a patient-centered, evidence-informed field of cancer care that utilizes mind and body practices, natural products, and/or lifesty traditions alongside conventional cancer treatments. Integrative oncology aims to optimize health, quality of life, and clinical outcomes across the cancer people to prevent cancer and become active participants before,during, and beyond cancer treatment.
123	**HEALTH CARE SERVICE (AYURVEDA CLINICAL PRACTICE)** Despite their historical praise, specialty studies and practices are not generally seen in current Ayurvedic education and practice. Current Ayurvedic educ training programs focusing upon specialty based health care delivery. This makes many disappointed who look at Ayurveda for a focused and specialized this gap in demand and supply are alarmingly obvious. With its unfocused health care approach, the Ayurvedic health care remains generic for large sect referral settings in Ayurveda to get a higher level of care better than the one offered at a primary health care setting. This apparent lack of expertise care health care used only on the instances of failure of other trusted options. Specialty clinical practices in Ayurveda seem highly important in order to build th health care delivery. Our preliminary observations from a deemed arthritis clinic at an Ayurveda teaching hospital, visited by a diverse joint disease popul and proposes the possibilities of using it as a template for the qualitative improvements in Ayurvedic health care delivery in the country in various clinical

124	**PHARMACOVIGILANCE IN AYURVEDA** Ayurveda, the knowledge of life, immortalized in the form of elegant Sanskrit stanzas in the samhitas describe diagnosis and therapy of disease as well a [1,2] Although the technical term “Pharmacovigilance” does not feature in ayurvedic texts, the spirit of pharmacovigilance is vibrant and is emphasized re goals of pharmacovigilance, namely to improve patient care and safety in relation to drug use, and thus promote rational drug use are recurrent themes o (dravyaguna vigyan) and therapeutics (chikitsa).[3] The use of ayurvedic medicines is popular in India - and in recent times has become accepted in othe survey conducted by the NCCAM in the USA showed that about 751 000 people in the United States had ever used ayurveda and 154 000 people had u [4] Associated with this increasing use, are growing concerns about the safety of ayurvedic medicines.[5,6] This paper discusses in brief the ayurvedic co medicines, the need for pharmacovigilance of ayurvedic medicines, challenges in introducing pharmacovigilance in ayurveda and some recommendation activities.
125	**PHYSIOTHERAPY** In recent years, physiotherapists have been increasingly interested in defining their professional identity. At the heart of this interest lies a fundamental qu plays in defining physiotherapy practice. Given the importance of the body to physiotherapy, it is surprising how under-theorized the body is in existing ph notable exceptions, the body as a philosophical/theoretical construct has been almost entirely bypassed by the profession. In this paper the authors argu meaning given to the body by physiotherapists is timely, and offer a sociohistorical critique of the role the body has played in defining physiotherapy pract longstanding affinity with a biomechanical view of the body, arguing that whilst this approach may have been critically important in the past, it is now incre inclusive approach to the body will be needed in the future. The authors explore the notion of embodiment and suggest ways in which embodiment theor practice.
126	**Rasa Bhaishajya Kalp Nirman** The Vishwamauli Ayurved Chikitsalaya originated in 2009 under guidance of Dr. Sachin Mhaisne sir Till now over 1200 students have got training in this institute and more than 60% have started their pure Ayurvedic OPD. In this institute preparation of Kalpas along with learning or Samhitas and diagnosis with practical aspects and proper procedures. Currently a batch of 20 students are practicing in this institute.
127	**FUNDAMENTAL RESEARCH IN AYURVEDA** Research is a natural process that goes on with everything in this universe with the passage of time. By following a scientific methodology, this research the society. The 1 first and foremost thing in research is to avoid bias in every sense . This is most important in case of Ayurveda since we use many com or a treatment and rely upon many subjective parameters for assessing the outcome. Hence, researches in Ayurveda, if made genuine and fruitful; the ac results are several times increased. This should be kept in mind in planning each and every research. This attitude should be reflected in our preference in a research process, the order must be Humanity- Medical Profession – Ayurveda – Speciality –Self. Utmost priority should be given to the mankind or against the humanity should be rejected in the first step itself, even though it is going to enrich the medical science. Similarly, medical profession should b individual system, whether it is Ayurveda or modern medicine. A lot of references are there in Ayurvedic texts which do not fit in the current scenario of cli suitable for that time period.

128	**INTEGRATIVE HEALTHCARE RESEARCH** The stimulus for this paper was a recent international workshop [1] designed to clarify and define the concept of integrative health care as it applies to the /alternative medicine (CAM) and conventional health care. A literature review conducted for a pre-workshop background paper highlighted the diversity of and identified that existing definitions tend to be idealistic in nature, view integrative health care as a finite outcome and as a predetermined outcome [2]. described their own attempts at integrating CAM and conventional medicine as a developmental process along a continuum, anchored by their goal of ful the idea that a continuum of team-oriented health care practice models exists is not new, [3–5] participants suggested that if further developed, it might pr differentiating the concept of integrative health care from other models of team-oriented health care practice. The primary objective of this paper is to dev describing, comparing and evaluating the different models of team-oriented health care practice that have evolved in Western healthcare systems. This fr patients and healthcare practitioners to explore what model best fits their needs; [6] and for researchers, program managers and policy makers to track th and to explore the relationship between practice models and health outcomes.
129	**CLINICAL RESEARCH AND MEDICAL ONCOLOGY** Despite considerable investment in oncological research, the rate of improvement in cancer treatments remains frustratingly slow and the attrition rate in reached exasperatingly high levels. New skills are required to expand upon platforms to integrate clinical, biological and imaging data in the decision mak the attrition rate of new drugs and/or determine tumor molecular sub-entities which will ultimately benefit new therapeutic strategies. Furthermore, modern generate reliable and robust evidence if they are not quality assured. Decreasing the number of poorly designed clinical trials through stronger collaborati a win-win situation and will reduce the current high attrition rate and minimize exposure of patients to ineffective investigational therapies.
130	**GENETIC HEALTH (INFECTIOUS DESEASES)** Infectious diseases represent a major health problem worldwide, both in terms of morbidity and mortality. A complex combination of environmental, patho role in determining both susceptibility to particular microbes and the course of infection. Numerous studies have now mapped and identified relevant gene based and population-based approaches. Much interest has been focused on susceptibility to malaria, HIV/AIDS and mycobacterial infection, but other ba are receiving increasing attention. Some major genes have been identified by genome scans of multi-case families, and mouse genetics has contributed genes. However, the great majority of known susceptibility loci emerged from screening of likely candidate genes. The emerging picture is of highly polyg genes, along with significant inter-population heterogeneity. This genetic architecture likely reflects the role that evolutionary selection has played in gene repertoire of susceptibility/resistance loci, most with individually small effects. Genome-wide association studies with large sample sizes will be required t polygenes.
131	**Samhitokta Rugna Nidan+Medical Oncology** The Vishwamauli Ayurved Chikitsalaya originated in 2009 under guidance of Dr. Sachin Mhaisne sir Till now over 1200 students have got training in this institute and more than 60% have started their pure Ayurvedic OPD. In this institute preparation of Kalpas along with learning or Samhitas and diagnosis with practical aspects and proper procedures. Currently a batch of 20 students are practicing in this institute.

132	**CELL BIOLOGY & CANCER BIOLOGY** Several decades of research have sought to characterize tumor cell metabolism in the hope that tumor-specific activities can be exploited to treat cancer. seminal observation of aerobic glycolysis in tumor cells, most of this attention has focused on glucose metabolism. However, since the 1950s cancer biol importance of glutamine (Q) as a tumor nutrient. Glutamine contributes to essentially every core metabolic task of proliferating tumor cells: it participates i defenses against oxidative stress and complements glucose metabolism in the production of macromolecules. The interest in glutamine metabolism has findings that c-myc controls glutamine uptake and degradation, and that glutamine itself exerts influence over a number of signaling pathways that contrib observations are stimulating a renewed effort to understand the regulation of glutamine metabolism in tumors and to develop strategies to target glutamin we review the protean roles of glutamine in cancer, both in the direct support of tumor growth and in mediating some of the complex effects on whole-boc of tumor progression.
133	**VACCINE TRIAL IMPLEMENTATION** The students are expected to learn how to design, organize, and execute vaccine trials that evaluate the safety, immunogenicity, and protective efficacy human populations. This involves the translational research aspect connecting the gap between vaccine discovery and its approved use for enhancing
134	**STRUCTURAL BIOLOGY, BIOINFORMATICS & OMICS** Bioinformatics has become an essential part of omics research and requires unique practical and analytical skills for appropriate results interpretation. Bio statistics to perform extensive omics-related research by searching biological databases and comparing gene sequences and protein on a vast scale to id differ between diseased and healthy tissues, or between different phenotypes of the same disease.30–37 The techniques used in omics are called high th analysis of very large numbers of genes, gene expression, or proteins in one procedure or combination of procedures. The vast amounts of data generate typically require computers for analysis and comparison of differences between diseased and physiological cells and tissues, a key feature of bioinformat used not only for the study of the genes and signaling pathways involved in human diseases, but also for identifying potential targets of therapy and the d suffix signifying the measurement of the entire complement of a given level of biological molecules and information – today encompasses a variety of nev normal and abnormal cell pathways, networks, and processes via the simultaneous monitoring of thousands of molecular components.
135	**MICROBIOLOGY, INFECTIOUS DISEASES & IMMUNOLOGY** Antibodies have been used for over a century in the prevention and treatment of infectious disease. They are used most commonly for the prevention of r tetanus, varicella, rabies, and vaccinia. Although their use in the treatment of bacterial infection has largely been supplanted by antibiotics, antibodies ren treatment of diptheria, tetanus, and botulism. High-dose intravenous immunoglobulin can be used to treat certain viral infections in immunocompromised parvovirus B19, and enterovirus infections). Antibodies may also be of value in toxic shock syndrome, Ebola virus, and refractory staphylococcal infection antibody licensed (in 1998) for an infectious disease, can prevent respiratory syncytial virus infection in high-risk infants. The development and use of adc epitopes of microbial pathogens may further define protective humoral responses and lead to new approaches for the prevention and treatment of infectio
136	**NEUROBIOLOGY & STEM CELL BIOLOGY** The peripheral nervous system (PNS) endows animals with the remarkable ability to sense and respond to a dynamic world. Emerging evidence shows th homeostasis and repair by integrating local changes with organismal and environmental changes. Here, we provide an in-depth summary of findings delin nerves in modulating stem cell behaviors and immune responses under steady-state conditions and in response to injury and duress, with a specific focus system. These examples showcase how elucidating neuro–stem cell and neuro–immune cell interactions provides a conceptual framework that connects with systemic bodily changes to meet varying demands. They also demonstrate how changes in these interactions can manifest in stress, aging, cancer, these findings can be harnessed to guide the development of new therapeutics.

137	**OBESITY MANAGEMENT** Management of obesity For most people, losing a small amount of weight to the tune of 5% can have benefits. This may be sufficient to reduce the risk of blood pressure. This is an achievable target that most patients can aim for and achieve by adopting a healthy life style of a healthy low calorie balanced d People should not be expected to lose more than 0.5–1 kg (1–2 lb) a week. If management of obesity of a member of the family is the concern, the whole measures. This is especially effective for obese children. Parents need to take responsibility for making changes to their child's diet and improving their p under 12 years of age. Exercise to lose weight For an average adult at least 30 minutes of moderate physical activity is recommended on 5 or more days the weight loss. Moderate activity usually means activities that make the person feel warm and raises their heart rate and breathing rate. These are terme development of diabetes and heart disease.
138	**Biotechnology** In biotechnology, learning goals are typically categorized into **academic outcomes** for students and **strategic objectives** for the industry. Whether you a field's purpose, these goals center on using biological systems to solve global challenges in health, food, and the environment. **1. Student Learning Out** at Indiana University and Rutgers University define specific competencies students should master: • **Scientific Core**: Mastering foundational concepts in molecular biology, genetics, and chemistry. • **Technical Proficiency**: Developing "wet lab" skills, such as PCR, gel electrophoresis, and DNA cloning. • **Critical Thinking**: Learning to design experiments, analyze complex data sets, and use inductive/deductive reasoning. • **Communication**: Gaining the ability to explain technical scientific information to diverse audiences. • **Ethical & Societal Impact**: Understanding the environmental and ethical implications of genetic modification and bioprocessing. **2. Strategic Industry Goals**The overarching "goals" of biotechnology as a field focus on practical applications to improve human life: • **Healthcare (Red Biotech)**: Developing vaccines, personalized medicines, and gene therapies to treat previously incurable diseases like cancer • **Agriculture (Green Biotech)**: Increasing food security by creating pest-resistant, drought-tolerant, and more nutritious crops (e.g., Golden Rice) • **Environment (Gray/White Biotech)**: Using bioremediation to clean up pollution (like oil spills) and creating sustainable biofuels or biodegradabl • **Sustainable Development**: Aligning with United Nations SDGs to promote clean water, sanitation, and affordable energy. **3. Career-Oriented Personal Goals**For those entering the field, immediate and long-term goals often include: • **Short-Term**: Securing internships in research labs or industrial settings and mastering standard operating protocols for sensitive equipment. • **Long-Term**: Contributing to the "circular bioeconomy," launching biotech startups, or pursuing advanced research in specialized fields like synth
139	**AUSHDHA NIRMAN** 2. Aushdha Nirman is one of the integral part of Prachin Sanhita Gurukul. Various Kalpa's are developed with clinical and literally research. Prachin Sar Six 3 days workshop on Aushdha Nirman. This learning objective will help students to be best in Aushdha Nirman and to think that subject in a different

140	**MANAGEMENT** Management (or managing) is the administration of an organization, whether it is a business, a non-profit organization, or a government body. It is the a resources of the business. Management includes the activities of setting the strategy of an organization and coordinating the efforts of its employees (or of volunteers) to accompli application of available resources, such as financial, natural, technological, and human resources. "Run the business" and "Change the business" are t management to differentiate between the continued delivery of goods or services and adapting of goods or services to meet the changing needs of cus "management" may also refer to those people who manage an organization—managers. Some people study management at colleges or universities; major degrees in management includes the Bachelor of Commerce (B.Com.), Bachelor of Master of Business Administration (MBA.), Master in Management (MSM or MIM) and, for the public sector, the Master of Public Administration (MPA) become management specialists or experts, management researchers, or professors may complete the Doctor of Management (DM), the Doctor of Bus Ph.D. in Business Administration or Management. In the past few decades, there has been a movement for evidence-based management.
141	**IMMUNOLOGY** Immunology is the study of the immune system and is a very important branch of the medical and biological sciences. The immune system protects us fro defence. If the immune system is not functioning as it should, it can result in disease, such as autoimmunity, allergy and cancer. It is also now becoming contribute to the development of many common disorders not traditionally viewed as immunologic, including metabolic, cardiovascular, and neurodegene From Edward Jenner's pioneering work in the 18th Century that would ultimately lead to vaccination in its modern form (an innovation that has likely save advance), to the many scientific breakthroughs in the 19th and 20th centuries that would lead to, amongst other things, safe organ transplantation, the ide now ubiquitous use of monoclonal antibodies throughout science and healthcare, immunology has changed the face of modern medicine. Immunological horizons in our understanding of how to treat significant health issues, with ongoing research efforts in immunotherapy, autoimmune diseases, and vacci Ebola. Advancing our understanding of basic immunology is essential for clinical and commercial application and has facilitated the discovery of new diag wide array of diseases. In addition to the above, coupled with advancing technology, immunological research has provided critically important research te cytometry and antibody technology.
142	**INSTATNT PAIN MANAGEMENT** Many non-medicine treatments are available to help you manage your pain. A combination of treatments and therapies is often more effective than just o include: Heat or cold – use ice packs immediately after an injury to reduce swelling. Heat packs are better for relieving chronic muscle or joint injuries. Ph stretching, strengthening or aerobic exercises may help reduce pain, keep you mobile and improve your mood. You may need to increase your exercise Massage – this is another physical therapy; it is better suited to soft tissue injuries and should be avoided if the pain is in the joints. There is some eviden manage pain, but it is not recommended as a long-term therapy. Relaxation and stress management techniques – including meditation and yoga. Cogniti form of psychological therapy can help you learn to change how you think and, in turn, how you feel and behave about pain. This is a valuable strategy fo pain. Acupuncture – a component of traditional Chinese medicine. Acupuncture involves inserting thin needles into specific points on the skin. It aims to r encourage it to heal by releasing natural pain-relieving compounds (endorphins). Some people find that acupuncture reduces the severity of their pain an However, studies on the effectiveness of acupuncture in managing pain is inconclusive. Transcutaneous electrical nerve stimulation (TENS) therapy – lo through the skin via electrodes, prompting a pain-relieving response from the body. There is not enough published evidence to support the use of TENS f conditions. However, some people with chronic pain that are unresponsive to other treatments may experience a benefit. Your doctor or other healthcare the best treatments for you.

143	**MANUFACTURING OF TRADITIONAL MEDICINE** Traditional medicine (TM) has always maintained its popularity worldwide. In addition, over the last decade, we have seen an increasing use of compleme (CAM) in many developed and developing countries. The safety and efficacy of traditional medicine and complementary and alternative medicines, as we important concerns for both health authorities and the public. Various traditional medicine practices have been developed in different cultures in different development of international standards and appropriate methods for evaluating traditional medicine. Therefore, sharing national experience and informati face major challenges in the development and implementation of the regulation of traditional, complementary/alternative and herbal medicines. These cha status, assessment of safety and efficacy, quality control, safety monitoring and lack of knowledge about TM/CAM within national drug regulatory authorit regulatory status of herbal medicines: Before manufactured drugs came into widespread use, herbal medicines played an important role in human health. Member States in the definition and categorization of herbal medicines. A single medicinal plant may be defined as a food, a functional food, a dietary sup different countries, depending on the regulations applying to foods and medicines in each country. This makes it difficult to define the concept of herbal m drug regulation, and also confuses patients and consumers.
144	**UNDERSTAND THE STARTUP ENABLING ECOSYSTEM (INCUBATOR)** People from these roles are regarded as linked together through shared events, activities, locations and interactions. As startup ecosystems are generally interactions among people, organizations and their environment, they can come in many types but are usually better known as startup ecosystems of spe (although some may say that due to social networks, the entire globe is just one big network of startup ecosystems). In addition, resources like skills, time components of an start-up ecosystem. The resources that flow through ecosystems are obtained primarily from the people and organizations that are acti By events and meetings with and between organizations and different people, these interactions play a key role in the movement of resources through th potential startups or strengthening the already existing ones and hence influencing the quantity of startups build. Failures of start-ups, release people with establishing a new start-up or joining an already existing one. Start-up ecosystems are controlled by both external and internal factors. External factors as disruptions and big companies transitions, control the overall structure of an ecosystem and the way things work within it. Start-up ecosystems being dyna initially in formation stages and once established are subject to periodic disturbances (like the financial bubbles) passing afterwards to the recovering proc disturbances. Start-up ecosystems in similar environments but located in different parts of the world can end up doing things differently simply because th culture and resources pool. The introduction of non-native people knowledge and skills can also cause substantial shifts in the ecosystem functions.
145	**GESTATIONAL DIABETES MELLITUS** Gestational diabetes mellitus (GDM) is a condition in which a hormone made by the placenta prevents the body from using insulin effectively. Glucose bu absorbed by the cells. Unlike type 1 diabetes, gestational diabetes is not caused by a lack of insulin, but by other hormones produced during pregnancy t condition referred to as insulin resistance. Gestational diabetic symptoms disappear following delivery.
146	**ORAL HEALTH EDUCATION** Oral health education **provides complete knowledge about the care to be taken regarding oral health**. Oral health education helps individuals to pr diagnosis and care.

147	**Health Information Managment** Health Information Management (HIM) learning goals focus on bridging the gap between healthcare, technology, and business to ensure patient data is a **Core Learning Pillars**HIM programs, often accredited by CAHIIM (Commission on Accreditation for Health Informatics and Information Management Edu foundational areas: • **Data Management & Quality**: Learning to collect, organize, and maintain both digital and traditional patient records. Students focus on "Data Qu information is accurate, consistent, and current. • **Medical Coding & Classification**: Mastery of universal coding systems like ICD-10 (International Classification of Diseases) and CPT (Current I accurate billing and clinical research. • **Privacy & Security (Compliance)**: Deep understanding of regulations such as HIPAA in the U.S., focusing on safeguarding sensitive health infc ethically. • **Information Systems & IT**: Training in Electronic Health Record (EHR) systems, database management, and health information exchanges (HIE • **Revenue Cycle Management**: Learning how health information directly impacts the financial health of facilities through claims processing and re • **Leadership & Analytics**: Developing critical thinking and project management skills to lead departments and use data analytics for improving he **Degrees and Careers**Education typically follows a tiered path with specific professional outcomes: • **Associate Degree**: Prepares students for technical roles like **Health Information Technician** or **Medical Coder**. • **Bachelor's Degree**: Qualifies graduates for the RHIA (Registered Health Information Administrator) exam and managerial positions such as **Cor** • **Master's Degree**: Focuses on advanced leadership, health informatics, and specialized research roles.
148	**HEALTH EDUCATION ALCOHOLIC LIVER DISEASE WITH WITHDRAWL MANAGMENT** Alcohol dependence represents a chronic and relapsing disease affecting nearly 10% of the general population both in the United States and in Europe, v and mortality. Alcohol dependence represents the most common cause of liver damage in the Western Countries. Although alcoholic liver disease is asso continued alcohol consumption, even in low doses after the onset of liver disease, increases the risk of severe consequences, including mortality. Consec affected by alcohol dependence and alcoholic liver disease should aim at achieving long-term total alcohol abstinence and preventing relapse. The aim o update on the management of alcohol dependence in patients with alcoholic liver disease. Increasing evidences suggests the usefulness of psychosocial combined in order to reduce alcohol intake, promote abstinence and prevent relapse in alcohol dependent patients. Disulfiram, naltrexone and acampros indication; gamma-hydroxybutyric acid (GHB) is approved in Italy and Austria. However, these drugs have not been tested in patients with advanced liver pharmacotherapies for alcoholism, topiramate, ondansetron, and baclofen seem the most promising ones. Both topiramate and ondansetron hold a safe none of them has been tested in alcoholic patients with advanced liver disease. To date, baclofen represents the only anti-craving medication formally tes alcoholic patients affected by liver cirrhosis, although additional confirmatory studies are warranted.

149	**HEALTH EDUCATION; CLINICAL RESEARCH** HEALTH EDUCATION; CLINICAL RESEARCH : Health education can be defined as the principle by which individuals and groups of people learn to beh promotion, maintenance, or restoration of health. Health Education also defined as "any combination of planned learning experiences based on sound the groups, and communities the opportunity to acquire information and the skills needed to make quality health decisions." Provision of evidence-based info step towards desired healthcare. Health education is essential for understanding the needs, developing, promoting and sustaining compliant behaviours f health education needs varies with geographies, gender, age, education etc. The strategies to communicating need for health education to priority popula understood to be effective and result in meaningful outcomes. The SIP for health education programme will focus on understanding the needs, modalities appropriateness of these modalities in different context through field exercise/study. The purpose and approach of health education has evolved over tim twentieth century, the aim of public health was controlling the harm from infectious diseases, which were largely under control by the 1950s. The major re definitions of school health education is the increasing acknowledgement that school education influences adult behaviour. Clinical research is a branch c the safety and effectiveness (efficacy) of medications, devices, diagnostic products and treatment regimens intended for human use. These may be used or for relieving symptoms of a disease. Clinical research is different from clinical practice. In clinical practice established treatments are used, while in clin establish a treatment. The term "clinical research" refers to the entire bibliography of a drug/device/biologic, in fact any test article from its inception in the consumer market and beyond. Once the promising candidate or the molecule is identified in the lab, it is subjected to pre-clinical studies or animal studies article (including its safety toxicity if applicable and efficacy, if possible at this early stage) are studied. Clinical research is often conducted at academic m study sites. These centers and sites provide the prestige of the academic institution as well as access to larger metropolitan areas, providing a larger poo academic medical centers often have their internal Institutional Review Boards that oversee the ethical conduct of medical research. The clinical research network of sites, pharmaceutical companies and academic research institutions. This has led to a growing field of technologies used for managing the da research. Clinical research management is often aided by e-Clinical systems to help automate the management and conducting of clinical trials.
150	**MEDICAL GENETICS: CLINICAL APPLICATION OF CYTOGENOMICS** The clinical genomics section is an integral part of the clinical and laboratory services at AFMC. The clinical departments, Dept of laboratory medicine an provide advanced clinical and diagnostic services to its dependent clientele and also onducting various intramural and extra mural research projects. Apa patients, the clinical genomics ection is also involved in training Postgraduate residents, officers, cadets, nursing and paramedical staff. The institute has wherein transmission electron microscopy carried out for patients suffering from renal, ermatological and neuromuscular disorders. The laboratory service cytometry immunophenotyping, aryotyping. RT -PCR, FRQ PCR, Methylation Study facilities, DNA sequencing, morphometry, immunohistochemistry, dir fluorescence in-situ hybridization (FISH). These specialized testing facilities are exclusive and are extended to all medical establishments of Pune and otl multispecialty clinical genetics section is also involved in routine creening camps for management of lifestyle diseases and cancer detection. The genomi medicine and MRU, AFMC, Pune offer diagnostic services that enable the identification of enomics abnormalities in patients with a variety of constitutiona of Clinical Genomics section at AFMC nctions with close collaboration with Clinical counterparts comprising departments of Reproductive Medicine, Obst facilities, Paediatrics and related subspecialities, Endocrinology, Dental, Cardiology, Respiratory medicine, Haematology and Psychiatry. Counsellors are population. The institute also successfully conducted various raining sessions and workshop on genomics.

151	**HEMATO-ONCOLOGY & CLASSICAL HEMATOLOGY** Hematologist-oncologists do not usually treat operable cancers such as prostate cancer, but specialize in treating blood cancers, such as Hodgkins and r and multiple myelomas. A hematologist-oncologist may also specialize in the management of solid tumors. After completion of medical school, residency includes both inpatient and outpatient rotations. During this time, fellows receive first-hand experience in managing various cancer types and blood disorc hematologist-oncologist fellowship programs are the Dana-Farber Cancer Institute, Memorial Sloan-Kettering Cancer Center and MD Anderson Cancer C oncology graduates end up solely focusing on oncology, the two specialties intersect in the understanding of leukemias, lymphomas and solid tumors. He joined in the diagnosis and management of hematologic conditions that may accompany various malignancies. ASH has adopted the term “classical hem or “benign” to refer to a broad range of non-cancerous blood disorders. Use of the terms “benign” and “non-malignant” has done both practitioners and pa seriousness of what are often life-threatening blood conditions. The term “classical hematology” helps us define the field by what it is rather than what it is scientific advances and progress fundamental to every aspect of health care and medicine. Classical hematology encompasses a large number of diseas thrombotic and hemorrhagic disorders; hemoglobin disorders such as sickle cell disease; anemia; thrombocytopenia; disorders of iron metabolism; obstet genetic hematologic diseases; and more. Discoveries in classical hematology have significantly advanced the field, helping to improve the diagnosis, trea with non-cancerous blood disorders. Use #ClassicalHeme on social media to join the conversation!
152	**DERMATOLOGY - EMERGENCIES IN DERMATOLOGY** Life-threatening dermatologic conditions include Rocky Mountain spotted fever; necrotizing fasciitis; toxic epidermal necrolysis; and Stevens-Johnson syr is the most common rickettsial disease in the United States, with an overall mortality rate of 5 to 10 percent. Classic symptoms include fever, headache, a tick bite or exposure. Doxycycline is the first-line treatment. Necrotizing fasciitis is a rapidly progressive infection of the deep fascia, with necrosis of the s occurs after surgery or trauma. Patients have erythema and pain out of proportion to the physical findings. Immediate surgical debridement and antibiotic Johnson syndrome and toxic epidermal necrolysis are acute hypersensitivity cutaneous reactions. Stevens-Johnson syndrome is characterized by target a central bulla. Toxic epidermal necrolysis is a more severe reaction with full-thickness epidermal necrosis and exfoliation. Most cases of Stevens-Johnsc necrolysis are drug induced. The causative drug should be discontinued immediately, and the patient should be hospitalized for supportive care.
153	**RESEARCH METHODOLOGY: HANDS ON SYNOPSIS PREPARATION** **RESEARCH METHODOLOGY: HANDS ON SYNOPSIS PREPARATION** The synopsis preparation process involves several key steps to ensure clarity and coherence in the research proposal. Here are the essential guideline **Purpose and Quality Benchmark:** Clearly define the purpose of your research and establish a quality benchmark to guide your study. **Research Planning:** Plan your research with a clear research question, objectives, and methods. **Feedback & Improvement:** Seek feedback from your supervisor and peers to refine your synopsis. **Research Ethics:** Ensure compliance with research ethics standards throughout your research process. For detailed guidelines on synopsis preparation, refer to the official research process documents from your institution or consult with your supervisor

154	**RADIO THERAPY** NAMCO Hospital is run by NAMCO Charitable Trust for the wellbeing of the patients from low socio-economic groups. Hospital is providing exclusive Cancer Care with Bone Marrow Transplant, Cardiology, Nephrology & Dialysis and other malti super specialty treatment facility. Now NAMCO Hospital is one stop solution for multispecialty medical and surgical illnesses including intensive and tertiary care. NAMCO Hospital is easily approachable in Panchavati area of the Nashik city, situated in a huge campus of 6.5 acres. Being a charitable hospital, it is well equipped with advance medical technology and expertise Consultants from all faculties. We also have a Nursing College imparting the practical clinical nursing knowledge with professional skill. NAMCO Hospital, being NABH Accredited Hospital, is one of the best academic learning centers with ample of clinical material and mind.
155	**CARDIOLOGY** Patients with acute heart failure (AHF) require urgent in-hospital treatment for relief of symptoms. The main reason for hospitalization is congestion, ratl Although congestion is associated with a poor prognosis, many patients are discharged with persistent signs and symptoms of congestion and/or a higl Available data suggest that a pre-discharge clinical assessment of congestion is often not performed, and even when it is performed, it is not done syst assess congestion prior to discharge has been validated. Grading congestion would be helpful for initiating and following response to therapy. We have assess congestion which should be considered in the care of patients admitted with HF. We propose a combination of available measurements of cong measurement of congestion include bedside assessment, laboratory analysis, and dynamic manoeuvres. These strategies expand by suggesting a rou a pre-discharge scoring system. A point system is used to quantify the degree of congestion. This score offers a new instrument to direct both current a designed to optimize volume status during and after hospitalization. In conclusion, this document reviews the available methods of evaluating congestic properly perform these measurements, and proposes a method to quantify the amount of congestion present.
156	**RESPIRATORY SYSTEM** The respiratory system is a biological system consisting of specific organs and structures used for gas exchange in animals and plants. The anatomy a happen varies greatly, depending on the size of the organism, the environment in which it lives and its evolutionary history.
157	**WORKING IN TRIBAL AREA** between state and people, individuals and society towards empowerment of marginalised sections. of society. This approach in Social Work scholarshi a anti- oppressive practice, a social work response to struggles of ethnic minorities, people with. disabilities, feminists etc.

158	**DRUG ANALYSIS AND STANDARDISATION** A course on drug analysis techniques could cover a range of analytical methods used in the pharmaceutical industry to ensure the quality, safety, and efficacy of drugs. Here's a possible structure along with learning goals for each section: 1. Introduction to Drug Analysis Understand the importance of drug analysis in pharmaceutical development and quality control. Learn about the regulatory requirements for drug analysis, including Good Manufacturing Practices (GMP) and pharmacopeial standards. 2. Basic Analytical Techniques Study common analytical techniques used in drug analysis, such as spectroscopy (UV-Vis, IR) and titrimetric techniques, particle size analysis. Learn the principles behind these techniques and their applications in pharmaceutical analysis. 3. Sample Preparation Understand the importance of sample preparation in drug analysis. Learn about different sample preparation techniques, such as extraction, filtration, and dilution. 4. Spectroscopic Techniques Study spectroscopic techniques used in drug analysis, such as UV-Vis, IR, and XRF, XRD, Learn how these techniques are used to characterize drug compounds and detect impurities.
159	**UTILITY OF GIS IN PUBLIC HEALTH** GIS and related spatial analysis methods provide a set of tools for describing and understanding the changing spatial organization of health care, for exa outcomes and access, and for exploring how the delivery of health care can be improved. This review discusses recent literature on GIS and health care. analyzing health care need, access, and utilization; in planning and evaluating service locations; and in spatial decision support for health care delivery. T researchers and policy-makers will depend on access to integrated spatial data on health services utilization and outcomes and data that cut across hum understand better the spatial behaviors of health care providers and consumers in the rapidly changing health care landscape and how geographic inform relationships.

160	**HEALTH SCIENCE EDUCATION (HSET)** The MUHS Regional Center located in Nagpur functions under the authority of MUHS in Nashik. It places a significant emphasis on academic affairs, particularly aiming to boost students' proficiency in research methodology and medical statistics. Moreover, the center offers specialized training programs for educators in the realm of medical education. Health sciences education technology plays a pivotal role in modernizing medical education by integrating innovative tools and resources. It enhances the learning experience through interactive simulations, virtual patient scenarios, Health sciences education technology facilitates remote learning, collaboration among healthcare professionals. Mission Statement: To empower medical education through the strategic integration of health sciences education technology, fostering a dynamic learning environment enriched with innovative tools and resources. Vision Statement: Our vision is to transform medical education by using technology in health sciences. This means creating engaging ways to learn, encouraging teamwork among healthcare workers, and making healthcare education better and easier to access all around the world.
161	**INTENSIVE CARE** NAMCO Hospital is run by NAMCO Charitable Trust for the wellbeing of the patients from low socio-economic groups. Hospital is providing exclusive Cancer Care with Bone Marrow Transplant, Cardiology, Nephrology & Dialysis and other malti super specialty treatment facility. Now NAMCO Hospital is one stop solution for multispecialty medical and surgical illnesses including intensive and tertiary care. NAMCO Hospital is easily approachable in Panchavati area of the Nashik city, situated in a huge campus of 6.5 acres. Being a charitable hospital, it is well equipped with advance medical technology and expertise Consultants from all faculties. We also have a Nursing College imparting the practical clinical nursing knowledge with professional skill. NAMCO Hospital, being NABH Accredited Hospital, is one of the best academic learning centers with ample of clinical material and mind.
162	**DIABETOLOGY** NAMCO Hospital is run by NAMCO Charitable Trust for the wellbeing of the patients from low socio-economic groups. Hospital is providing exclusive Cancer Care with Bone Marrow Transplant, Cardiology, Nephrology & Dialysis and other malti super specialty treatment facility. Now NAMCO Hospital is one stop solution for multispecialty medical and surgical illnesses including intensive and tertiary care. NAMCO Hospital is easily approachable in Panchavati area of the Nashik city, situated in a huge campus of 6.5 acres. Being a charitable hospital, it is well equipped with advance medical technology and expertise Consultants from all faculties. We also have a Nursing College imparting the practical clinical nursing knowledge with professional skill. NAMCO Hospital, being NABH Accredited Hospital, is one of the best academic learning centers with ample of clinical material and mind.

163	**NEPHROLOGY & DIALYSIS** NAMCO Hospital is run by NAMCO Charitable Trust for the wellbeing of the patients from low socio-economic groups. Hospital is providing exclusive Cancer Care with Bone Marrow Transplant, Cardiology, Nephrology & Dialysis and other malti super specialty treatment facility. Now NAMCO Hospital is one stop solution for multispecialty medical and surgical illnesses including intensive and tertiary care. NAMCO Hospital is easily approachable in Panchavati area of the Nashik city, situated in a huge campus of 6.5 acres. Being a charitable hospital, it is well equipped with advance medical technology and expertise Consultants from all faculties. We also have a Nursing College imparting the practical clinical nursing knowledge with professional skill. NAMCO Hospital, being NABH Accredited Hospital, is one of the best academic learning centers with ample of clinical material and mind.
164	**BONE MARROW TRANSPLANT** NAMCO Hospital is run by NAMCO Charitable Trust for the wellbeing of the patients from low socio-economic groups. Hospital is providing exclusive Cancer Care with Bone Marrow Transplant, Cardiology, Nephrology & Dialysis and other malti super specialty treatment facility. Now NAMCO Hospital is one stop solution for multispecialty medical and surgical illnesses including intensive and tertiary care. NAMCO Hospital is easily approachable in Panchavati area of the Nashik city, situated in a huge campus of 6.5 acres. Being a charitable hospital, it is well equipped with advance medical technology and expertise Consultants from all faculties. We also have a Nursing College imparting the practical clinical nursing knowledge with professional skill. NAMCO Hospital, being NABH Accredited Hospital, is one of the best academic learning centers with ample of clinical material and mind.
165	**CARDIO-THORASIC SURGERY** NAMCO Hospital is run by NAMCO Charitable Trust for the wellbeing of the patients from low socio-economic groups. Hospital is providing exclusive Cancer Care with Bone Marrow Transplant, Cardiology, Nephrology & Dialysis and other malti super specialty treatment facility. Now NAMCO Hospital is one stop solution for multispecialty medical and surgical illnesses including intensive and tertiary care. NAMCO Hospital is easily approachable in Panchavati area of the Nashik city, situated in a huge campus of 6.5 acres. Being a charitable hospital, it is well equipped with advance medical technology and expertise Consultants from all faculties. We also have a Nursing College imparting the practical clinical nursing knowledge with professional skill. NAMCO Hospital, being NABH Accredited Hospital, is one of the best academic learning centers with ample of clinical material and mind.
166	**Obstetrics & Gynaecology** Obstetrics and Gynecology (OB-GYN) is the combined medical specialty focused on women’s reproductive health across their lifespan. Obstetrics covers care, while gynecology deals with the diagnosis and treatment of diseases of the female reproductive organs (uterus, ovaries, vagina). OB-GYNs are doc

167	**HEALTH EDUCATION (ECG BASIC COURSE)** The Certificate Course in ECG Interpretation is **a comprehensive program that provides the necessary skills and knowledge to interpret ECGs e** available investigation commonly employed in various healthcare segments to assess the cardiovascular system.
168	**TO PROVIDE A COMPREHENSIVE UNDERSTANDING OF AYURVEDA TREATMENT PRINCIPLES** This system is based on the belief that health and wellness, both physical and mental, depend on a balance between the mind, body and spirit. **Ayurve diseases by restoring this balance through natural methods such as diet, lifestyle, herbs, yoga and meditation**.

169

CARDIOLOGY IN DAY-TO-DAY PRACTICE COURSE

Introduction: In India the incidence of non-communicable illnesses is rising. Unfortunately India is already known to be the Diabetic Capital of the worl come in OPD are of Hypertension, Ischemic Heart disease, Heart Failure along with some cases of rheumatic heart disease, cardiomyopathy. Knowled ECHO and Stress Test is essential at undergraduate level. It is important to know the recent guidelines of diagnosis and management of common cardi mind a basic course of cardiology of under graduate level will be covered in this session.

Learning Goal :

- To learn to take a detail and relevant history of Cardiovascular system.
- To learn to do Examination of Cardiovascular system.
- To study common cardiovascular disorders like

a) Hypertension,

b) Ischemic heart disease,

c) Heart Failure,

d) Rheumatic Heart disease,

d) Congenital Heart Disease and Arrythmias.

- Learn to take correct blood pressure
- To observe how to take ECG, performance of 2D ECHO and Stress test.
- To have basic knowledge about ambulatory blood pressure monitoring.
- To learn the significance of Cardiac biomarkers.

Course content:

Week 1

- Day 1 - Introduction to Cardiology
- Day 2 - History taking and examination of Cardiovascular System
- Day 3 - Latest Guidelines of diagnosis and management of Hypertension (ACC & ESH)
- Day 4 - Latest guidelines of diagnosis and management of Heart Failure
- Day 5 - Symptomatology, diagnosis, and Management of Acute MI(Part I)
- Day 6 - Seminar

Week 2

- Day 1 - Symptomatology, diagnosis, and Management of Acute MI (Part II)
- Day 2 - Rheumatic Heart Disease
- Day 3 - Congenital Heart Diseases
- Day 4 - Common Arrythmias (Part I)
- Day 5 - Common Arrythmias (Part II)
- Day 6 - POST TEST= 100 marks. (MCQ’s OSCE)

170	**CLINICAL SKILL & INTEGRATION** Incorporating clinical content into medical education faculty development programs has been proposed as a strategy to consolidate faculty continuing m learning. We developed a faculty development program for ambulatory internal medicine preceptors that integrated primary care genetics with ambulato strategies addressed both areas simultaneously and included facilitated discussions, mini-lectures, trigger tapes, and role plays. To evaluate the progra Skills were measured by retrospective pre-post self-reported ratings and behaviors by self-reported implementation of commitment to change (CTC) sta ambulatory precepting and primary care genetics skill ratings improved after the intervention. They listed an average of 2.4 clinical teaching CTC staten statements. By 3 months after the workshop, preceptors, as a group, fully implemented 32 (38%), partially implemented 35 (41%), and failed to implem most common barrier to clinical teaching change was insufficient skills (8 of 25; 32%) and to clinical practice change was lack of a suitable patient (15 o content with clinical teaching in a faculty development workshop is feasible, can improve clinical and teaching skills, and can facilitate behavior change.
171	**STARTUP AND ENTREPRENEURSHIP SKILLS** Entrepreneurship skills are essential in positioning entrepreneurs to identify opportunities, make effective decisions, turn their ideas into reality, overcon resources to achieve goals and succeed. The importance of entrepreneurship skills lies in: • Encouraging social change and improving lives • Creating employment opportunities for others • Driving economic growth and opening new markets and industries • Improving the quality of life with new ideas and building functional products or services • Providing opportunities for personal and professional growth, as well as financial rewards • Enhancing one's capacity to work efficiently alone, as well as in collaboration • Reaching the desired goals and achieving excellent results
172	**CANCER GENETICS** The International Cancer Genome Consortium (ICGC) is one of the most ambitious biomedical research efforts since the Human Genome Project. The coordinate large scale studies to generate high resolution catalogues of genomic alterations in tumors of 50 different cancer types/subtypes that have c across the globe. These studies undertaken by the member countries of ICGC will eventually analyze over 25,000 cancer genomes at the genomic, epi to reveal the complete repertoire of oncogenic mutations with the goal towards accelerating efforts to develop better ways of diagnosing, treating and pr studies share common standards in ethical consent, patient recruitment as well as data collection, storage, analyses and access. Since the overarching benefit from research, data are being made rapidly available to qualified investigators
173	**HEALTHCARE DATA ANALYTICS** Healthcare data analytics **helps managers in making predictions regarding resource availability, treatment facilities, checkups, etc**. This has pr and also boosted the trust and faith of patients in medical treatments.

174	**SNAKE BITE MANAGEMENT IDENTIFICATION & VENOMICS & NON VENOMICS TREATMENT** Snakebite envenoming represents a neglected tropical disease that has a heavy public health impact, particularly in Asia, Africa and Latin America. A glo antivenom production and accessibility, is being promoted by the World Health Organization and others. This work discusses several aspects of antiveno the proteomic analysis of snake venoms, for which the term 'snake venomics' has been coined, might play a relevant supporting role. Snake venomics ha generating knowledge at different levels (ontogenetic, individual, and geographic) on inter- and intraspecies venom variability. This information has applic preparations used in antivenom manufacture. Moreover, the design of the best venom mixtures for immunization, aimed at increasing the effectiveness o venom proteome analysis, including molecular studies of the cross-reactivity of antivenoms and heterologous venoms through a recently developed meth 'antivenomics'. Results generated by proteomic protocols should be complemented by preclinical testing of antivenom efficacy using functional neutraliza be also helpful in designing alternative in vitro tests for the assessment of antivenom efficacy that would eventually substitute current in vivo tests.
175	**FUNDAMENTAL OF PRINCIPLES & PRACTICES OF HOMOEOPATHY** 1. To understand fundamental principles of homeopathy 2. understanding the dynamic spiritual concepts of Homeopathy 3. to adapt the skills of case taking and bed side examination 4. must able to apply principals of individualisation in the management of patient
176	**EXPLORE THE AYURVEDA CLINICAL RESEARCH IN TERM OF LIFESTYLE MODIFICATIONS, PANCHKARMA THERAPIES** Panchakarma is a treatment program for the body, mind, and consciousness that cleanses and rejuvenates. It is based on Ayurvedic principles, **every** l **manifested through the five basic elements of Ether, Air, Fire, Water, and Earth**.
177	**10 UNIQUE PANCHABHAUTIK MEDICINES** • The consideration of typical causative factors (Hetus) and their treatment is the basic line of this treatment. Most contemporary Vaidyas hardly thir • The special formulations and process of preparations reduces the dose and the side effects to the patients. Most Vaidyas can't think of such small • The number of medicines required to practise this method is the lowest. The contents are mainlly herbs which are widely available and are not so c chikitsa very economical, as opposed to modern medicines or other Ayurvedic methods. • Stress plays an important role in our hectic lives today. The research on stress and its treatment is a unique contribution of this method.

178	**Manufacturing Skills in Ayurvedic Medicine Making Rasa Aushadhi (Herbo Mineral Preparation Ayurveda)** Rasendra Rasashala was incorporated in 2010 as a proprietorship company with the objective of manufacturing of specialty med Hyderabad and Manu No 29 TSIIC Biotech park phase III medicines in Ayurveda with its registered registered office at Prasanth nagar Kapra Karakapatla Siddipet (d) T.S pro by processing in its actual way as stated in authentic Ayurveda texts. Vaidya Ramakrishna Viswanadha, 51yrs, a Promoter Managing partner, an Post graduate (Rasashastra in Ayurveda from Shri Ayurveda Mahavidyalay University of Healt Sciences Dr.B.R.K.R.Ayurvedic Medical College A.G.Colony Road Hyderab T.S.Has teachin experience of 20 years in subject Rasa (Pharmaceutics of Ayurveda) i Rasashastra. Recipient of Title Rasacharya from Chief minister of Maharashtra. Conducted many sessions for training in manufacturing methods at various platforms at Nationa level. Presently conducting RASA workshops (Rasa Aushadhi nirman Sk January 2022
179	**MANAGEMENT OF PUBLIC HEALTH AND LIFESTYLE DISORDER THROUGH AYURVEDA** Ayurveda offers various methods to manage life-style disorders by following **Dinacharya, Ritucharya, Panchakarma therapy, Rasayana therapy**. Ay in preventing the upcoming epidomic of lifestyle disorders which are preventable with changes in diet, lifestyle and environment.
180	**CLINICAL AYURVED AND PANCHAKARMA THERAPY** The main objective of health science is to provide better health to every human being. Indian system of medicine commonly known as Ayurveda has a l disease and provides treatment without affecting the other parts of the body. Similarly, it is effective in preventing an individual from getting diseased in can be classified into two basic categories such as -ailments treated or managed by Shodhan therapy and the ailments treated by surgical intervention. conditions where surgery is indicated, one can try Shodhan or Panchkarma therapies before performing surgery or/ if the patient is not fit for surgery or procedure. Similarly, Acharya has specified that physician should not advocate Surgery in diseases which can be treated by Shodhan and Shaman the Panchakarma is a combination of five procedures of purification- Vamana (Emesis), Virechana (Purgation), Niroohavasti (Decoction enema), Nasya (in nostrils), and Anuvasanavasti (Oil enema). These procedures aim at plucking away the deep-rooted imbalances in the body.

181	**NUTRITION CONTENT ANALYSIS** Nutritional Analysis is the scientifically set stepwise process of assessing the types, amount, and nature of nutrients available in a given food sample. Ir are standardized and set by FSSAI. The importance of nutritional analysis has several spectrums. There are as follows: **Food components:** Food Nutrition Analysis helps in the detailed and perfect determination of the component nutrients present in any food item. Food components have vast bio metabolic roles and could affect human health severely. If the consumer has a clear idea about the food component, he or she may choose or reject specific food items according to his or her health condition. As an example, khichdi is more beneficial than plain rice or roti alone in case a person is looking for low-cost supplementary food for protein-energy ma sourced from rice and dal makes khichdi more nutritional and wholesome. Nutritional Analysis and comparison of 'Khichdi' with various other food items helped scientists in concluding this revolutionary easy way which is now a therapeutic dish in India's master plan of fighting Protein Energy Malnutrition. **Nutritional value:** Nutritional Analysis detects the exact nutritional value of any given food item. It determines the percentage of macro and micronutrients present in that food item as well as the presence of inhibitors, toxic chemicals, or any other n nutrition mapping where a variety of food items are regularly being tested and included in the standardized book of Nutritive Value of Indian Foods by th Research Presences of inhibitors, toxic chemicals in various foods are tested in food nutrition analysis. Inhibitors like phytate, oxalate decrease the bioa chemicals like saponin, trypsin inhibitors, pathogens, etc. cause mild to severe ailments in the human body. Food Nutrition Analysis by FSSAI has been instrumental in India's nutrition mapping as there are vast varieties, numbers, and types of crops, fruits, and throughout different parts of India. Newly found food items, local or indigenous, are constantly being tested in Food testing laboratories for their nutritional analysis by standardized nutritic India's food list. Agricultural researchers regularly trying to discover new Genetically Modified Foods which would be economical and easy to yield for farmers and nutrit consumers. Nutritional analyses of these food items also enrich the food variety of our nation.
182	**HEALTHCARE ADMINISTRATION** **Health administration**, **healthcare administration**, **healthcare management** or hospital management is the field relating to leadership, management systems, health care systems, hospitals, and hospital networks in all the primary, secondary, and tertiary sectors. **Health administration**, **healthcare a management** or hospital management is the field relating to leadership, management, and administration of public health systems, health care systems in all the primary, secondary, and tertiary sectors.

183	**CANCER GENETICS AND GENOMICS** The International Cancer Genome Consortium (ICGC) is one of the most ambitious biomedical research efforts since the Human Genome Project. The coordinate large scale studies to generate high resolution catalogues of genomic alterations in tumors of 50 different cancer types/subtypes that have c across the globe. These studies undertaken by the member countries of ICGC will eventually analyze over 25,000 cancer genomes at the genomic, epi to reveal the complete repertoire of oncogenic mutations with the goal towards accelerating efforts to develop better ways of diagnosing, treating and pr studies share common standards in ethical consent, patient recruitment as well as data collection, storage, analyses and access. Since the overarching benefit from research, data are being made rapidly available to qualified investigators (www.icgc.org) . ;
184	**DRONES IN MEDICAL TECHNOLOGY** • APPLICATION OF DRONE AND TECHNOLOGY IN THE MEDICAL INDUSTRY • TYPES OF APPLICATIONS • SOP'S OF TECHNOLOGY IMPLEMENTATION • NEW PRODUCT DEVELOPMENT FOR MEDICAL INDUSTRY • USE CASES OF DRONES IN MEDICAL TECHNOLOGY

185	**AYURVEDIC MANAGEMENT OF METABOLIC DISORDERS** Jeevanrekha Ayurved is 26 years old healthcare and research organisation with a primary focus on Obesity, PCOS, Arthritis, Heart care, and cosmetics management. Our products are customised for every individual, based on their pathology and managed through our expert doctors. For those looking to learn from Jeevanrekha Ayurved's expertise, here's a suggested approach: 1. Understanding the Core Principles: Begin by understanding the foundational principles of Ayurveda as practiced by Jeevanrekha Ayurved. This includes the concepts of doshas, Agni, Ama, and the role they play in metabolic disorders. 2. Pathology Specific Learning: Dive deep into the pathology of each metabolic disorder Jeevanrekha Ayurved specializes in. This includes understanding the Ayurvedic perspective on the root causes, symptoms, and progression of these disorders. 3. Customized Treatment Approaches: Learn about Jeevanrekha Ayurved's approach to customizing treatments for each individual. This includes studying how they assess a patient's dosha imbalance, Agni status, and other factors to tailor a treatment plan. 4. Herbal Formulations and Therapies: Study the herbal formulations and therapies used by Jeevanrekha Ayurved for managing metabolic disorders. This includes understanding the properties of specific herbs and how they are combined to address different aspects of the disorders. 5. Diet and Lifestyle Recommendations: Explore the diet and lifestyle recommendations provided by Jeevanrekha Ayurved for managing metabolic disorders. This includes understanding the importance of daily routines, seasonal variations, and specific dietary guidelines.
186	**BASICS OF PANCHAKARMA** **Panchakarma therapy consists of five cleansing aspects:** • Emesis (VAMANA) • Purgation (VIRECHANA), • Medicated enemas (BASTI) • Medicated nasal oils (NASYA) • Toxic bloodletting (RAKTAMOKSHAN)

187	**UNDERSTAND GENERAL DENTAL PRACTICE** **General dentistry** is the branch of medicine that deals with diagnosing and treating dental problems. It includes everything from oral surgery to tooth re Tooth decay, gum disease, and other dental issues can cause pain and discomfort. General dentists are experts at resolving these problems through va and extractions. They can also recommend preventive measures, such as flossing and regular brushing. General dentists are specialists in all aspects of dental care, from preventive care and oral health maintenance to diagnosing and treating dental issues general dentists: family dentists, pediatric dentists, and adult dentists.
188	**AI IN HEALTHCARE** AI in healthcare is **an umbrella term to describe the application of machine learning (ML) algorithms and other cognitive technologies in medi** AI is when computers and other machines mimic human cognition, and are capable of learning, thinking, and making decisions or taking actions.
189	**NUTRI-COSMETOLOGY** Nutri-cosmetology, or "nutricosmetics," combines nutrition and cosmetics, focusing on improving health and beauty from within through orally consume applications.
190	**AYURVEDIC THERAPIST** An Ayurvedic therapist in Mumbai utilizes the principles of Ayurveda, an ancient Indian system of medicine, to promote holistic health and well-being thr lifestyle recommendations. They assess individual constitutions (doshas), create tailored plans, and may use techniques like herbal medicine, massage
191	**INFENITLY & ONCOLOGY MANAGED BY AYURVEDA** Ayurvedic oncology involves using natural therapies, dietary adjustments, and herbal medicines to manage cancer by restoring bodily balance and stre
192	**Ksharsutra** Kshar sutra is the specialized, most famous, and most reliable, minimal invasive surgical procedure for Piles, Fissure in Ano, fistula in Ano, Sentinel tag has about to null recurrence rate after procedure (about 1-2 % in 1000 cases). the best part is that this could be done in O.P.D in most cases and there procedure. in maximum cases anaesthesia also not needed or the procedure may be done under local anaesthesia. The Kshar means alkaline medicines (tends to be chemical cauterizing media) and the Sutra means thread. The thread smeared in Kshar is called Ksh The Kshar (cauterizing media) has alkaline pH and possesses cauterizing (cutting), disinfection, wound healing properties so it cuts, cleans, heals in sa Kshar can also be used as internal medicine (*Paneey Kshar*) for some ailments but that Kshar is different from the Kshar of Kshar sutra.

193	**MEDICAL TECHNOLOGY SOCIAL COMMITMENT** • APPLICATION OF DRONE AND TECHNOLOGY IN THE MEDICAL INDUSTRY • TYPES OF APPLICATIONS • SOP'S OF TECHNOLOGY IMPLEMENTATION • NEW PRODUCT DEVELOPMENT FOR MEDICAL INDUSTRY • USE CASES OF DRONES IN MEDICAL TECHNOLOGY
194	**CLINICAL RESEARCH, AGNIKARMA & VIDDHAKARMA CHIKITSA** SLV Ayurveda Nagpur is a renowned center dedicated to promoting Ayurvedic healthcare through traditional practices and treatments. The center focu range of services such as consultations, therapies, and herbal remedies to enhance physical, mental, and spiritual well-being, catering to the diverse he region. Clinical research plays a pivotal role in Ayurveda by providing scientific validation and evidence-based support for its traditional practices and treatment efficacy, and mechanisms of action of Ayurvedic interventions, ensuring their acceptance and integration into modern healthcare systems. Ayurveda is healthcare by offering holistic and personalized approaches to healing and wellness. Mission Statement: Our mission is to to demonstrate the safety, efficacy, and mechanisms of action of Ayurvedic interventions, ensuring their acceptance and integration in worldwide. Vision Statement: To establish Ayurveda as a globally recognized and accepted healthcare system through robust clinical research, providing scientific validation and evi traditional practices and treatments.
195	**CLINICAL RESEARCH,YOGA** SLV Ayurveda Nagpur is a renowned center dedicated to promoting Ayurvedic healthcare through traditional practices and treatments. The center focu range of services such as consultations, therapies, and herbal remedies to enhance physical, mental, and spiritual well-being, catering to the diverse he region. Clinical research plays a pivotal role in Ayurveda by providing scientific validation and evidence-based support for its traditional practices and treatment efficacy, and mechanisms of action of Ayurvedic interventions, ensuring their acceptance and integration into modern healthcare systems. Ayurveda is healthcare by offering holistic and personalized approaches to healing and wellness. Mission Statement: Our mission is to to demonstrate the safety, efficacy, and mechanisms of action of Ayurvedic interventions, ensuring their acceptance and integration in worldwide. Vision Statement: To establish Ayurveda as a globally recognized and accepted healthcare system through robust clinical research, providing scientific validation and evi traditional practices and treatments.

196	**PANCHKARMA** Panchakarma is a treatment program for the body, mind, and consciousness that cleanses and rejuvenates. It is based on Ayurvedic principles, every h manifested through the five basic elements of Ether, Air, Fire, Water, and Earth. The combination of these elements are three doshas (tridosha): Vata, Pitta, and Kapha, and their balance is unique to each individual. When this doshi disorder resulting in disease. Panchakarma is done individually for each person with their specific constitution and specific disorder in mind, thus it requires close observation and su purification Measures of Snehan and Svedana, and then cleansing methods – Shodanas, are applied.
197	**Manufacturing skills in Ayurvedic Medicine Making Rasa Aushadhi (Herbo Mineral Preparatio AYURVEDA)** Rasendra Rasashala was incorporated in 2010 as a proprietorship company with the objective of manufacturing of specialty medicines in Ayurveda witl nagar Kapra Hyderabad and Manufacturing Facility and R&D at Plot No 29 TSIIC Biotech park phase III Karakapatla Siddipet (d) T.S promising quality in its actual way as stated in authentic Ayurveda texts. Vaidya Ramakrishna Viswanadha, 51yrs, a Promoter Managing partner, an Post graduate (Rasashastra in Ayurveda from Shri Ayurveda Mahavidyalay University of Healt Sciences Dr, B.R.K.R.Ayurvedic Medical College A.G.Colony Road Hyderab T.S.Has teachin experience of 20 years in subject Rasa (Pharmaceutics of Ayurveda) i Rasashastra. Recipient of Title Rasacharya from Chief minister of Maharashtra. Conducted many sessions for training in manufacturing methods at various platforms at Nationa level. Presently conducting RASA workshops (Rasa Au Activity) since January 2022
198	**ALCOHOLIC LIVER DISEASE** Alcoholic liver disease, or alcohol-related liver disease (ARLD), encompasses a range of liver conditions caused by excessive alcohol consumption, inc and cirrhosis.
199	**AYUSH MEDICLAIM AND NABH ACCREDITATION** Bharatiya ayurved sanstha is committed to advancing the Ancient science of ayurved, promoting holistic wellness, and Nurturing the next generation of Our mission is to seamlessly blend traditional Panchakarma ayurvedic Knowledge to meet global Health challenges effectively. We aim to provide students with Panchakarma Practical experience, professional development opportunities, and inspiration to excel in this growing fie Empowering Ayurvedic Professionals & Establishing Ayush Mediclaim & NABH accredited Cashless Ayurvedic Hospitals Nationwide

200	**TO LEARN VARIOUS TECHNICS TO DISINFECT THE LINEN(FABRICS) USED IN MULTISPECIALTY HOSPITAL** To learn various technics to disinfect the linen (Fabrics) used in Multispecialty Hospitals. To explore techniques for disinfecting linen in multispecialty hospitals during your summer internship, you can focus on the following key areas: Chemical Disinfection: Learn about the use of disinfectants like sodium hypochlorite, hydrogen peroxide, and quaternary ammonium compounds for tre Thermal Disinfection: Study the role of high-temperature washing and steam sterilization in eliminating pathogens from fabrics. Handling Protocols: Understand the importance of proper handling, segregation, and transportation of soiled linen to prevent cross-contamination. PPE for Staff: Explore the use of personal protective equipment (PPEVAN GARO to blaundry
201	**MERCHANDISE MAKING FOR HEALTH PROFESSIONALS** 2. Merchandise Making for Health Professionals For a summer internship program focused on merchandise fabric making for health professionals, here are some key aspects to explore: 1. Durable and Functional Fabrics: Research and create fabrics suited for healthcare settings, such as wrinkle-resistant, easy-to-clean, and stain-repell 2. Comfort and Breathability: Focus on producing fabrics that are lightweight, moisture-wicking, and comfortable for long hours, particularly for scrubs a 3. Antimicrobial Properties: Develop fabrics treated with antimicrobial finishes to ensure hygiene and reduce the risk of infections. 4. Customization Options: Create fabrics that can feature branding, such as hospital logos or department-specific patterns, through techniques like prin 5. Sustainable Materials: Explore eco-friendly fabrics, such as organic cotton or recycled polyester, to appeal to environmentally conscious professiona 6. Compliance with Safety Standards: Ensure the fabrics meet healthcare industry standards for safety, durability, and comfort. These elements can help you design innovative and practical fabric solutions for healthcare professionals.
202	**TO DEVELOP THE ENTREPRENEURSHIP FOR HEALTH PROFESSIONALS** 3. To develop the entrepreneurship for Health Professionals To develop entrepreneurship in merchandise fabric making for health professionals during a summer internship program, focus on these key elements: 1. Market Research and Opportunities: Teach participants how to analyze healthcare apparel and merchandise needs, identifying gaps in the current m 2. Innovative Fabric Design: Encourage the development of fabrics with unique properties like antimicrobial features, moisture-wicking capabilities, or e healthcare environments. 3. Business Planning: Offer training on creating a robust business plan, covering cost estimation, supply chain management, and profitability analysis. 4. Branding and Marketing: Emphasize the importance of branding, logo incorporation, and targeted marketing to make the merchandise appealing to h 5. Collaborations and Networking: Enable connections with textile manufacturers, healthcare providers, and business mentors to foster partnerships an 6. Sustainability and Ethics: Highlight the significance of using sustainable materials and maintaining ethical production processes, which align with mo 7. Practical Execution: Incorporate hands-on activities like prototyping fabric samples and developing a mock sales pitch for the merchandise. These elements can empower health professionals to innovate and establish successful businesses in merchandise fabric making.

FUNDAMENTALS OF HISTOPATHOLOGY TECHNIQUES & DIAGNOSTIC APPROCH

FUNDAMENTALS OF HISTOPATHOLOGY
Histopathology is the study of microscopic changes in tissues to diagnose diseases.
Basic Steps in Histopathology Technique
1. Fixation
Purpose: Preserve tissue structure and prevent decay
Common fixative: 10% formalin
Prevents autolysis and bacterial growth
2. Tissue Processing
Includes:
Dehydration (using alcohol)
Clearing (using xylene)
Embedding (in paraffin wax)
Converts soft tissue into a solid block for cutting
3. Sectioning
Done using microtome
Thin sections (3–5 µm) are cut
Placed on glass slides
4. Staining
Makes tissue structures visible
Most common stain: Hematoxylin & Eosin (H&E)
Hematoxylin stains nucleus (blue)
Eosin stains cytoplasm (pink)
5. Mounting
Coverslip applied with mounting medium
Protects tissue and allows viewing
Special Techniques
1. Special Stains
PAS glycogen, fungi
Ziehl-Neelsen tuberculosis bacteria
Masson's trichrome connective tissue
2. Immunohistochemistry (IHC)
Uses antibodies to detect specific antigens
Helps in cancer diagnosis (tumor markers)
3. Frozen Section
Rapid diagnosis during surgery
Tissue frozen and cut quickly
4. Electron Microscopy
Ultra-structural details (organelles)
DIAGNOSTIC APPROACH IN HISTOPATHOLOGY
Step-by-Step Approach:

	1. Clinical Information Patient history Symptoms Lab findings 2. Gross Examination Size, shape, color of specimen Cut surface appearance 3. Microscopic Examination Cell structure Tissue architecture Presence of abnormal cells 4. Pattern Recognition Inflammation Degeneration Neoplasia (tumor) Infection 5. Differential Diagnosis Compare similar conditions Rule out possibilities 6. Final Diagnosis Combine: Clinical data Microscopy Special tests
204	**INNOVATION AND ENTREPRENEVRSHIP** DISHA is an incubation centre which fosters innovation through mentorship, funding and providing resources for Health care startups at supports sustai care innovations

205	**AYUSH MEDICAL TERMINOLOGIES, CODING; NAMSTE PORTAL, WHO- INTERNATIONALCLASSIFICATION OF DISEASES (ICD)-11, TM2.** **AYUSH Medical Terminologies & Classification** Learning Outcomes: • Apply standardized AYUSH medical terminologies and coding systems. • Utilize the NAMASTE portal for terminology research and standardization. • Understand and apply the WHO-ICD-11 TM2 framework. • Conduct literature reviews on AYUSH medical terminologies. • Analyze and compare different coding systems. • Contribute to the development of standardized terminologies. • Write articles and reports on terminology standardization and coding. • Understand the importance of standardized terminologies for research.
206	**LIFESTYLE DISORDERS AND PANCHKARMA MANAGEMENT** Lifestyle disorders encompass a broad spectrum of health conditions directly influenced by individual habits, choices, and environmental factors. These diabetes, cardiovascular diseases, mental health issues, and certain cancers, arise primarily from sedentary lifestyles, poor dietary practices, stress, an prevalence has surged in recent decades alongside urbanization and global socioeconomic changes, posing significant public health challenges worldw therapeutic benefits of Panchakarma, a cornerstone of Ayurvedic medicine, in the management and treatment of lifestyle disorders. In recent years, the such as obesity, diabetes, cardiovascular diseases, arthritis, mental health conditions, and high cholesterol—has escalated alarmingly, driven by rapid the adoption of sedentary lifestyles and unhealthy dietary habits. These conditions are exacerbated by factors such as stress, lack of physical activity, c nutrition. Panchakarma, which translates to "five actions," comprises a set of five cleansing and rejuvenating procedures: Vamana (therapeutic emesis) (medicated enema), Nasya (nasal administration), and Raktamokshana (bloodletting). These procedures aim to detoxify the body, eliminate accumulate balance of the doshas (Vata, Pitta, and Kapha), which are fundamental to maintaining health according to Ayurveda. This comprehensive review synthe evidence on the efficacy of World Journal of Pharmaceutical Research SJIF Impact Factor of Panchkarma, l. World Journal of Pharmaceutical Researc lifestyle disorders. It discusses how these detoxification and purification techniques help improve metabolic function, reduce body weight and adiposity, enhance cardiovascular health by lowering cholesterol and blood pressure, and alleviate symptoms of anxiety and depression. By addressing the root c than merely treating symptoms, Panchakarma offers a holistic approach that not only promotes physical health but also mental and emotional well-bein underscores the potential of Panchakarma as a valuable tool in combating lifestyle disorders. It advocates for its wider adoption and integration into cor highlighting its ability to promote long-term health, prevent disease progression, and enhance quality of life through holistic and natural means
	AYURVEDIC GYANECOLOGY AND INFERTLITY MANAGMENT Ayurvedic gynecology and infertility management focuses on holistic approaches, addressing the root causes of infertility through personalized treatme herbal remedies to restore balance and enhance fertility. Here's a more detailed look at Ayurvedic approaches to gynecology and infertility: Ayurvedic Perspective on Infertility: **Holistic Approach:** Ayurveda views infertility not as a single problem, but as a result of imbalances in the body's systems, including the reproductive system.

Focus on Underlying Causes:
Ayurvedic treatments aim to address the root causes of infertility, such as hormonal imbalances, stress, and lifestyle factors, rather than just treating sy

Personalized Treatment:
Ayurvedic practitioners tailor treatments to the individual's unique constitution (Prakriti) and the specific imbalances they experience.

Emphasis on Lifestyle:
Ayurveda emphasizes the importance of diet, exercise, stress management, and regular routines for maintaining overall health and promoting fertility.

Common Ayurvedic Herbs and Treatments for Infertility:
Herbal Remedies:

- **Shatavari (Asparagus racemosus):** Known as a female reproductive tonic, it supports ovarian function and hormone balance.
- **Ashwagandha (Withania somnifera):** Helps reduce stress and anxiety, which can negatively impact fertility.
- **Gokshura (Tribulus terrestris):** A fertility booster, it supports reproductive health in both men and women.
- **Other Herbs:** Lodhra (Symplocos racemosa), Bala (Sida cordifolia), and Dashmoola are also used for various gynecological conditions and to sup

Ayurvedic Procedures:

- **Panchakarma:** A detoxification process that helps remove toxins and imbalances from the body, promoting overall health and fertility.

- **Uttaravasti:** A specific Ayurvedic procedure that involves administering herbal oils or medications directly into the uterus to promote healing and in

- **Shamana (Palliative) and Shodhana (Purification) Therapies:** These approaches aim to pacify imbalances and cleanse the body, respectively, fertility.

Ayurvedic Management of Specific Gynecological Conditions:

Polycystic Ovarian Syndrome (PCOS):

Ayurveda addresses PCOS by balancing hormones, reducing inflammation, and improving insulin sensitivity.

Endometriosis:

Ayurvedic treatments focus on reducing inflammation, relieving pain, and improving uterine health.

Tubal Blockage:

Ayurvedic procedures like Uttaravasti and herbal remedies can help improve tubal patency and promote fertility.

Anovulation:

Ayurvedic treatments aim to regulate the menstrual cycle and promote ovulation.

Premature Ovarian Failure (POF):

Ayurvedic herbal remedies and lifestyle changes can help support ovarian function and improve fertility.

Important Considerations:

Consult a Qualified Practitioner:

It's essential to consult with a qualified Ayurvedic practitioner for personalized diagnosis and treatment.

Integrative Approach:

Ayurveda can be used as a complementary approach to conventional medical treatments for infertility.

Lifestyle Changes:

Adopting a healthy lifestyle, including a balanced diet, regular exercise, and stress management, is crucial for improving fertility.

Patience and Persistence:

Ayurvedic treatment can take time, so it's important to be patient and persistent in following the recommended plan.

To find a "COMPLETE KERALIYA PANCHKARMA ADVANCED COURSE," you should look for institutions offering advanced training in Panchakarma, focused on detoxification and rejuvenation, often with a Kerala Ayurveda focus.

Here's a breakdown of what to look for and where to find such courses:

What to Look For:

Panchakarma Specialization:

The course should be specifically focused on Panchakarma techniques and therapies.

Advanced Level:

Look for courses that go beyond introductory levels and delve into the intricacies of Panchakarma.

Kerala Ayurveda Focus:

If you're interested in the Kerala tradition of Ayurveda, seek out courses that emphasize the Kerala approach to Panchakarma.

Hands-on Training:

A good course will include practical training and supervised practice in performing Panchakarma therapies.

Theory and Clinical Experience:

The course should provide a blend of theoretical knowledge and clinical experience.

Internship or Clinical Training:

Look for courses that offer internships or clinical training opportunities to gain real-world experience.

Certification:

Consider courses that offer a recognized certification upon completion.

Where to Find Such Courses:

- **Ayurveda Academies:** Look for reputable Ayurveda academies, particularly those with a strong focus on Panchakarma and Kerala Ayurveda.

- **Ayurvedic Hospitals:** Some Ayurvedic hospitals offer training programs in Panchakarma.

- **Universities and Colleges:** Some universities and colleges offer diploma or certificate programs in Ayurveda and Panchakarma.

- **Online Courses:** Several online platforms offer courses in Ayurveda and Panchakarma.

Specific Institutions and Programs:

- **Kerala Ayurveda Academy:** Offers various courses, including Panchakarma Technician programs.

- **Ayurveda College:** Offers Diploma in Ayurveda and Panchakarma (DAP).

- **Tapasya Health & Wellness:** Offers a Panchakarma Therapist Certification course.

- **Sree Sankaracharya University of Sanskrit:** Offers a Diploma in Ayurveda Panchakarma and Spa Therapy.

- **Other Institutes:** Search for other institutions offering similar courses, such as those affiliated with the Scientific and Technical Education Develop

Key Concepts in Panchakarma:

- **Panchakarma:** A five-fold detoxification and rejuvenation therapy in Ayurveda.

- **Doshas:** The three vital energies (Vata, Pitta, and Kapha) that govern the body's functions.

- **Detoxification:** The process of removing toxins and impurities from the body.

	• **Rejuvenation:** The process of restoring vitality and well-being. • **Therapies:** Various Panchakarma therapies, such as Vamana (induced vomiting), Virechana (induced purgation), Vasti (medicated enema), Nasya Raktamokshana (blood purification).
209	**OP-POISONING** Organophosphate (OP) poisoning occurs due to exposure to chemicals like insecticides and nerve agents, causing a buildup of acetylcholine, leading t secretions, muscle weakness, and potentially respiratory failure.
210	**AYURVEDA AND MENTAL HEALTH** Ayurveda and Mental Health: Enhancing Well-being of Healthcare Professionals Healthcare professionals often face immense physical, mental, and emotional stress due to the demanding nature of their work. Ayurveda, with its holis strategies to maintain mental well-being, prevent burnout, and enhance resilience. This module explores Ayurvedic principles related to stress management, emotional balance, and mental rejuvenation. It covers the role of Dinacharya Rasayana (rejuvenation therapies), meditation, and herbal support in promoting mental health. By integrating these Ayurvedic practices, healthcare pro balance, improve focus, and sustain their well-being while providing optimal patient care.
211	**PRINCIPLES OF AYURVEDA FOR A HAPPY STUDENT LIFE** Applications of Principles of Ayurveda for a Happy Student Life Student life comes with its own set of challenges, including academic pressure, stress, irregular routines, and lifestyle imbalances. Ayurveda, the scienc to enhance physical health, mental clarity, and emotional well-being, ensuring a balanced and fulfilling student experience. This module explores key Ayurvedic concepts such as Dinacharya (daily regimen), Ahara (nutritious diet), Nidra (restful sleep), and Sattva Bala (menta concentration, manage stress, and maintain overall wellness. By incorporating Ayurvedic wisdom into their daily lives, students can achieve academic s health and happiness.
212	**INNOVATIONS IN INTEGRATIVE DRUG RESEARCH** Innovations in Integrative Research The learning goal aims to introduce students to innovations in integrative clinical research, combining conventional and complementary approaches to I They will also gain practical insights in designing and evaluating integrative clinical studies for evaluating herbal medicinal products and formulations.

213	**AYURVEDA BEAUTY IN COSMETOLOGY, TRICHOLOGY & NUTRITION** According to folklore, Bhopal was founded by the Parmar Dynasty King Bhoj. Bhopal originally known as BHOPAL. A large lake was constructed by kin known as Bada Talab. Bhopal is also known as “City of Lakes” for its various natural and artificial lakes. It is a one of the greenest cities in India. Bhopa and well connected to all over country through railway, roads & Air. Ujjain, Omkareshwar, Bhojpur, Sanchi, Vidisha, Indore, Maheshwar etc. Many cities situated nearby to the Bhopal. Pachmari a well-known and one of the best hill station of India is also not far from Bhopal. LN Ayurved college is one of the best Ayurved college in Bhopal MP which is run by one of the best leading university in MP i.e. LNCT University, have Conducting more than 67+courses. LNCT Group always serves their duties to needy mankind in natural disaster like covid-19 and others. L N Ayurved College provides a good ratio of well trained & highly educated faculty member equipped with all modern technology. It also helps to expos knowledge in the field of Ayurveda. Ayurveda is a comprehensive system & natural health care that originated in the ancient Vedic time of India. The primary goal is prevention of disease Ayurveda translate as the “Science of life” & its addresses all aspects of life. It emphasizes the importance of adopting healthy lifestyle habits to maintai being and prevent diseases. It offers tailored dietary recommendations, daily and seasonal regimen based on an individual's unique constitution (Prakri incorporating these principles, Ayurveda provides a comprehensive and natural approach to maintaining health, beauty, and well-being. MUHS and LNCT University LN Ayurved College, Bhopal has jointly given this Opportunity of Summer Internship Program (SIP) to the candidate to: 1. Learn, observe experience and achieve the objectives by completing the SIP. 2. Share his ideas 3. Explore career and scientific development activities. 4. Create a meaningful full-time experience. 5. Grab opportunity to again valuable applied experience. 6. Gain an insider and realistic view of SIP Center. 7. Be able to integrate academic coursework with practical application and skill development: 8. Use the platform to develop network and make connections with professionals in intern’s field of interest. SIP is consisting of multiple elements. The idea is that each intern will work with his/her mentor to create a summer plan that supplements the intern’s a and scientific development activities. It is a sort of experiential learning that integrates knowledge and theory learned in the classroom with practical application and skills development in a p SIP is unique platform to provide significant exposure to students for observer ship with broad exposure to the organization/Orientation/Real life experie Professional relations in your esteemed organization and vice versa. In a nutshell SIP scheme is aimed to achieve following Objectives. a. To utilize the summer vacation period of undergraduate student for their value addition through extra-curricular activities. b. To provide a unique experience among the under graduate Candidates from a variety of backgrounds. c. To provide a platform for undergraduate Candidates of various disciplines such as Health science, Engineering, Managements, Arts, Sciences, C understand diverse culture and traditional practices. d. To provide the research exposure for those interested in potential careers in health science and public health. e. To comply with the provision prescribed under National Education Policy like cultural awareness and social well-being.

214	**BASIC LIFE SUPPORT** Basic Life Support (BLS) encompasses the initial, life-saving interventions for someone experiencing cardiac arrest or respiratory distress, focusing on breathing, and restoring circulation through techniques like CPR.
215	**IHR-FROM POLICY TO PEOPLES'S HEALTH SECURITY** IHR-FROM POLICY TO PEOPLE'S HEALTH SECURITY The International Health Regulations (IHR) 2005 training for health professionals aims to strengthen global health security by improving the capacity to public health threats. Key learning goals include: 1. Understanding IHR (2005) Framework Explain the purpose, scope, and legal framework of IHR (2005). Identify the roles and responsibilities of Member States and the World Health Organization (WHO). 2. Surveillance and Early Detection Recognize public health events of international concern (PHEIC). Apply principles of early warning systems and event-based surveillance. Strengthen reporting mechanisms to National IHR Focal Points (NFPs) and WHO. 3. Risk Assessment and Public Health Response Conduct risk assessments using IHR criteria. Implement rapid response measures to contain outbreaks and other health emergencies. Coordinate multi-sectoral responses, including travel and trade measures. 4. Strengthening Core Capacities Assess and develop national core capacities for surveillance and response. Improve laboratory networks and diagnostic capacities. Enhance workforce preparedness and training.. Communication and Collaboration Apply risk communication strategies during public health emergencies. Strengthen international collaboration and information sharing. Engage with stakeholders, including government agencies and communities. 6. Public Health Measures at Points of Entry (PoE) Implement health measures at airports, seaports, and land borders. Ensure compliance with IHR requirements for international travel

216	**IMMUNOLOGY AND AYURVEDA** 3. Immunology and Ayurveda Total duration- 2 weeks (5 days a week), 6 hrs per day Modules -2 Module 1. Lectures and discussion; Module 2. Clinics and visits Broad learning objectives- Introduction to Immunology Introduction to Immunology in Ayurveda Intersection concepts, translation in practice Hands on traninng to immunology lab work
217	**MEDICINE FORMULATION AYURVEDA** An Ayurvedic formulation can be defined as the one based plants, animal extracts and minerals both in single ingredient drugs and compound formulati various literatures belonging to Ayurveda or those formulated by the physicians or scientists who belong to Ayurvedic science. Although, Ayurveda doe being used as a potential source of medicine, it is estimated that there is around 1000 single drug formulations and 8000 compound formulations that a All the main classical works on Ayurveda, such as Caraka Samhita, Sushruta Samhita, Astanga Sangraha, Astanga Hridaya, etc. deal with drugs, their to the other aspects of the medical system. These texts not only mention the compound formulations but also single drug formulations. It is to be observed that the writers and propagators of these texts were mainly Ayurvedic practitioners of their time or belonging to their genealogy. As identification, preparation and proper utilization of the drugs either in their single or compound form. But during the recent period of modernization of Ind in the social and economic conditions have led to the growth of urbanization and rapid deforestation. As a result, the Ayurvedic physicians took to cities forests and drug sources. Thus, the Ayurvedic practitioner could no longer process and prepare his own medicines as in the past, but had to depend or to this developed conditions and newer socio – economic set up that resulted in the rise of Ayurvedic Drug Manufacturing Industry. This gave birth to cr commercial manufacture of Ayurvedic medicines. This gave rise to a new segment of market which needed the supply of prepared Ayurvedic medicine industry which dealt with the drug manufacturing sector for Ayurveda.
218	**INSTANT PAIN MANAGEMENT THRU AYURVED** Pain Management: Pain, an unpleasant sensation resulting from injury, damage, or medical conditions, can be effectively addressed through Ayurvedic ancient healing system, recognizes the diverse nature of pain, which can manifest as sharp, dull, aching, burning, or shooting sensations. From headac back pain, Ayurveda offers natural remedies to alleviate these common sources of discomfort. Ayurvedic principles differentiate between acute and chr from temporary tissue damage and chronic pain persisting for more than three to six months. By incorporating Ayurvedic therapies, herbs, and lifestyle experience sustainable relief and embrace holistic well-being in their pain management journey.

219	**HEALTH EDUCATION: MOTHER AND CHILD HEALTH CARE** Health education for mothers and children is crucial for promoting overall well-being and preventing health issues. Here are some key aspects of health Maternal Health: Focuses on the health of women during pregnancy, childbirth, and the postpartum period, ensuring a positive experience for both moth Child Health: Involves the health of infants and preschool children from birth to five years, addressing issues like infections, uncontrolled fertility, and die Community-Based Solutions: Organizations like the Foundation for Mother and Child Health work in communities to co-create and test solutions, providing expert guidance and nutritional information. Integrated Approaches: The 1978 Alma-Ata Declaration recognized MCH as an essential component of primary healthcare, promoting integrated appro Global Goals: The United Nations Sustainable Development Goals target improvements in maternal and child health, highlighting its global significance These elements are essential for creating a healthy environment for mothers and children, ensuring their well-being and contributing to the overall healt
220	**CLINICAL RESEARCH / OPERATIONS RESEARCH** Nestled in Bhosari, Pune, the ICMR-National Institute of Translational Virology and AIDS Research (formerly NARI) has been a steadfast pillar supporti Programme since its inception. With a robust emphasis on surveillance, capacity enhancement, laboratory services, and drug resistance studies, the in the battle against HIV/AIDS. Through extensive collaborations both nationally and internationally, ICMR-NARI stands as a beacon of research, innovati realms of virology and AIDS research. About learning goal The initiative aims to offer invaluable research exposure to students who harbor ambitions in health sciences and public health fields. By engaging in th opportunity to delve into various aspects of research, gaining firsthand experience in conducting studies, analyzing data, and drawing conclusions. Thro involvement in research projects, they will develop critical skills, enhance their understanding of research methodologies, and broaden their knowledge Ultimately, this endeavor seeks to empower aspiring professionals to make meaningful contributions to the advancement of healthcare and public healt
221	**CLINICAL RESEARCH / EPIDEMIOLOGICAL STUDIES / QUALITATIVE STUDIES** ICMR-NITVAR, Pune is a national research institute of Indian Council of Medical Research (ICMR), MoHFW, Govt. of India. This institute conducts rese related to HIV & other co infections, TB, STIs including HPV, Monkey Pox. It also focuses on the research of eliminable diseases science. Under the above-mentioned study area, the SIP students will be accommodated in the division of epidemiology of ICMR-NITVAR. 'HIV and beyond' is the theme for the Epidemiology Division. Division focus on evidence generation for HIV, Sexually Transmitted Infections including H Tuberculosis, and Hypertension and work closely with India's National AIDS Control Programme and NHM to generate 'data-for-action to assist India's elimination strategies. Impact Evaluation studies. Operations and Implementation research, Clinical Trials, Community and facility-based surveys, Senti Effectiveness studies are included in our repertoire. Students will be oriented to designing, implementing and analyzing different operational studies and
	AUTO- IMMUNE DISEASES IN DERMATOLOGY

222	he Department of Dermatology. AFMC & CH(SC provides inpatient and out-patient treatment to Dermatological disorders, Sexuall transmitted infections (HIV/AIDS) cases of Pune garrison and referred cases of Southern Command. It responsible for training of Post graduates (MD/DDVL), Undergraduate (Nursing cadets, STAS & NAs) Currently, Dermatology department is housed in the first floor in Block 1 of the new Command Hospital building. The civ the first floor of the civil OPD complex. The Department of Dermatology at AFMC was established in 2010, in the newly constructed building having req Lecture Hall complex next to Dhanvantari auditorium. At CH(SC), in addition to an 85 bedded Skin. STD & Leprosy Centre, the department also manag (IDC) within the existing resources since 1992, including inpatient care, documentation and surveillance of HIV/AIDS persons registered at this Immunc Learning goal: By the end of the module, the undergraduate student will be able to recognize the clinical features, understand the underlying pathophysiology, and app autoimmune skin disorders. The student will demonstrate competence in diagnosing conditions such as pemphigus vulgaris, lupus erythematosus, and implications for patient care. Specific Objectives: 1. Understanding the Pathophysiology of Autoimmune Skin Diseases: Comprehend the immunological mechanisms underlying autoimmune dermatological disorders, including the role of autoantibodies and T-cell mediated Understand the concept of autoimmunity and how it leads to skin inflammation, blistering, and tissue damage. 2 Recognition of Common Autoimmune Dermatological Disorders: Pemphigus Vulgaris: Recognize the clinical features, including mucosal involvement, flaccid blisters, and Nikolsky sign, as well as the role of autoantibo Lupus Erythematosus (Cutaneous Lupus): Identify the characteristic "butterfly" rash, discoid lupus lesions, and understand systemic involvement in lupu Psoriasis: Identify the hallmark features of psoriasis, including well-demarcated erythematous plaques with silvery scales, and understand its pathogen Bullous Pemphigoid: Recognize tense blisters and understand the difference in pathophysiology from pemphigus vulgaris (autoantibodies against hemi Dermatomyositis: Identify the characteristic heliotrope rash and Gottron's papules, and recognize its association with muscle weakness. 3.Conduct a focused dermatological examination to assess skin lesions, mucosal involvement, and signs of systemic disease. Le Ce Understand and use diagnostic tests such as skin biopsy, direct immunofluorescence, serological tests (e.g., ANA, anti-dsDNA, anti-desmoglein), and T red of Develop a differential diagnosis based on the clinical presentation and test results. Management of Autoimmune Dermatological Diseases: Understand the general principles of management for autoimmune skin disorders, including immunosuppressive therapies Topical treatments: corticosteroids. calcineurin inhibitors, and other immunosuppressive creams. Systemic treatments: oral corticosteroids, immunosuppressants (e.g.. methotrexate, azathioprine), biologics (e.g. TNF inhibitors, rituximab for pemphigu Understand the role of phototherapy in the management of psoriasis and cutaneous lupus. Discuss the importance of regular monitoring for side effects of immunosuppressive therapies, including infection risks, liver function, and bone health. 5. Patient Education and Psychological Impact: Educate patients on the chronic nature of autoimmune skin diseases and the importance of treatment adherence to manage flare-ups and prevent complications. Discuss lifestyle modifications such as sun protection for lupus patients and skin care for those with blistering diseases. Recognize the psychological impact of chronic skin diseases, including self-esteem issues, and provide appropriate counseling or referrals to mental he

223	**HIV CARE CONTINUUM** Both HIV and Hepatitis B & C infections are public health issues with great concern and social stigma. The HIV care continuum is a model to track the s It's a public health tool that helps measure the effectiveness of HIV program. It composes of HIV diagnosis, linkage to Medical care, receipt of medical c with achievement of viral suppression. Blood borne hepatitis is mostly Hepatitis B and Hepatitis C infection. This is also a public health problem with go National Viral Hepatitis Control Programme (NVHCP) to detect and treat patients with Hepatitis b & C infection and achieve treatment success. Learning goal: HIV care continuum and Blood borne hepatitis for MBBS/BDS undergraduate students Department of Internal Medicine, AFMC, Pune 14. Dution of Statin Week 1 HIV care continuum Introduction: Lecture Components of HIV care continuum: Lecture Diagnosis of HIV: Demonstration Treatment modalities of HIV: Lecture Appropriate selection of antiviral agents: Demonstration at ART centre Followup of HIV patients: Demonstration at ART centre
224	**BLOOD BORNE HEPATITIS** Both HIV and Hepatitis B & C infections are public health issues with great concern and social stigma. The HIV care continuum is a model to track the s It's a public health tool that helps measure the effectiveness of HIV program. It composes of HIV diagnosis, linkage to Medical care, receipt of medical c with achievement of viral suppression. Blood borne hepatitis is mostly Hepatitis B and Hepatitis C infection. This is also a public health problem with go National Viral Hepatitis Control Programme (NVHCP) to detect and treat patients with Hepatitis b & C infection and achieve treatment success. Blood borne hepatitis Introduction: Lecture Causes of Hepatitis: Lecture Diagnos-s of Viral Hepatitis: Demonstration Treatment options for Viral Hepatitis: Lecture Evaluation of patients with hepatitis: Bedside demonstration Assessment of response to treatment: Bedside demonstration How to follow-up: Bedside demonstration
	CAPILLARY ZONE ELECTROPHORESISD

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Capillary electrophoresis is modern techniques that can be used for a wide range of molecules and sample types. It is based on the electrokinetic sepa with electrolyte buffer. The capillary format offers quick and effective separation an automation. The advantages of CE over conventional separation me and liquid chromatography, are ease miniaturization, simplicity, quick separation with good resolution & reproducibility along with requirement of low sa is used for Hb electrophoresis in workup of Hemoglobinopathy screening, esp in antenatal cases. Protein electrophoresis is done to evaluate patients fo gammopathy. The patients thus screened are worked up further for confirmation. The Dept of Biochemistry has a CZE facility and utilizes it routinely for patients are further evaluated with High performance Liquid Chromatography for Hemoglobinopathy & Molecular workup for the mutations. For abnorma immunofixation is done and a free light chain assay is advised along with clinical & biochemical correlation. Due to its high thruput and a varied number Laboratory, the above module shall expose the students to a sophisticated technique in terms of its clinical application and interpretation.

Learning goal:

AFMC SIP plan

Week 1

Day1

Introduction to Separation techniques: Conventional vs Automated: Lecture & demonstration

Day1

Week 2

Day2

Principles & Indications of CZE: Lecture

Day2

Interpretation of results of Hb Electrophoresis & Significance of Parental testing-Hands on experience with case discussions

Day3

Day4

Technique of CZE (Hb & Protein): Hands on Demonstration

Day 3

Interpretation of results of Protein Electrophoresis-Hands on experience with case discussions

Quality Control of CZE

Ward & OPD visit to Dept of Hematology & Medicine)- Sample collection & Sample processing for CZE: Hands on experience

Day 4

Comparison of technique, advantages & limitations of CZE vs HPLC for Hb: Lecture & Practical Demonstration

Day5

Practical demonstration & Hands on experience of Hb Electrophoresis

Day 5

Intro to Molecular Workup in Haemoglobinopathy

Day6

Practical demonstration & Hands on experience of Protein Electrophoresis

Day 6

	Closing: Clinical applications-practice & prospects
226	**YOGA: HEALTH BENEFITS** YOGA: HEALTH BENEFITS Yoga is an ancient practice from India that combines physical postures (asanas), breathing (pranayama), and meditation to improve overall health. 1. Physical Health Benefits Improves Flexibility Regular yoga stretches muscles Helps reduce stiffness and body pain Builds Strength Strengthens muscles and bones Improves posture and balance Better Heart Health Reduces blood pressure Improves circulation Lowers risk of heart disease Helps in Weight Management Burns calories (especially power yoga) Improves metabolism 2. Mental Health Benefits Reduces Stress Lowers stress hormone (cortisol) Promotes relaxation Improves Concentration Enhances focus and memory Helpful for students and professionals Helps in Anxiety & Depression Calms mind through breathing and meditation Improves emotional stability 3. Respiratory Benefits Improves Lung Capacity Breathing exercises (pranayama) strengthen lungs Helpful in asthma and breathing problems 4. Better Sleep

Improves Sleep Quality
Helps in insomnia
Relaxes body and mind before sleep
5. Pain Relief
Reduces Chronic Pain
Helpful in back pain, arthritis, neck pain
Improves joint mobility
6. Boosts Immunity
Improves body's defense system
Reduces inflammation
7. Hormonal Balance
Helps regulate hormones
Beneficial in thyroid issues and PCOS
Common Yoga Practices
Asanas (e.g., Tadasana, Bhujangasana)
Pranayama (e.g., Anulom Vilom, Kapalbhati)
Meditation
Conclusion
Yoga is a holistic practice that improves: Physical fitness
Mental peace
Overall well-being
If you want, I can also: Give daily yoga routine (beginner)
Provide weight loss yoga plan
Share easy 10-minute yoga for busy schedule

HENSEN'S DISEASE

Brief Description of SIP Centre and Each Leaming Goal (Up to maximum of 2000 words)

(op to maximum of 2000 Words)

The Department of Dermatology, AFMC & CH(SC) provides noatient and out-patient treatment to Dermatological disorders. Sexually transmitted infecti surveillarice (HIV/AIDS) casas of Pune gamson and referred cases of Southern Command. It is responsible for training of Post graduates (MD/DDVL). Paramedical staft (Nursing caders. STAS & NAS) Currently. Dermatology department is housed in the first floor in Block 1 of the new Command Hospit AFMC Functions in the first foor of the civil OFD complex. The Department of Dermatology at AFMC was established in 2010, in the newly constructed behind the New Lecture Hall complex next to Dhanvantan auditorium. At CH(SC) in addition to an 85 bedded Skin, STD & Leprosy Centre, the departm Immunodeficiency Centre

Learning Goal:

227	IDC) within the axising resources since 1992, including inpatient care, documentation and surveillance of HIV/AIDS persons registered at this Immunod By the end of the module, the undergraduate student will be able to recognize the clinical features, diagnose Hansen's disease (leprosy), understand its appropriate management and patient care strategies, including prevention and patient education. Specific Objectives: Ren Understanding the Pathophysiology and Epidemiology of Hansen's Disease: to have 1.Understand the causative organism Mycobactenum leprae and its transmission through respiratory droplets and skin-to-skin contact. 1085 Recognize the global epidemiology of Hansen's disease, including the regions most affected, and identify at-risk populations 2. Clinical Features and Diagnosis: Damtici 9 Recognize the characteristic clinical signs and symptoms of Hansen's disease, such as -Hypopigmentad or erythematous skin patches with loss of sensation -Thickened peripheral nerves jeg ulnar, radial, and peroneal nerves) -Loss of eyebrows and eyelashes (in advanced cases) -Nasal congestion or deformities in chronic cases) -Disabilly due to nerve damage (eg, claw hand, foot drop Learn how to take a detailed history from a patient suspected of having Hanser's disease, ncluding exposure history, symptoms, and family history Understand the role of laboratory tests, including skin smears (for acid-fast baciti) and biopsy, to confirm the diagnosis 3.Differential Diagnosis: Differentiate Hansen's disease from other dermatological conditions with simila- presentations 4.Management and Treatment: Understand the standard treatment regenen for Hansen's disease, which includes multi-drug therapy (MDT), typically involving -Ritampicin -Dapsone -Clolazimine Discuss the duration of treatment and management of potential complications (eg, nerve camage, reactions such as erythema nodosum lepresumi Emphasize the importance of treatment adherence to prevent resistance and long-term disability 5.Prevention, Stigma, and Patient Education: Explain the pronoples of preventing the spread of Hansen's disease, including early detection, contact tracing, and treatment of close contacts Discuss Hansen's disease and strategies to combat discriminason and promote patient well-being Educate patients on managing their condition, including skin care, nerve protecson, and strategies to prevent deformibus. 6.Management of Disabilities: Recognize and understand the rohabitation needs of individuals with learcsy, including managing physical disabilites ke claw hand, foot crop, and cafo Understand the role of physical tonrapy, Surgery, and prosthetics in morovieng cuaity of life for pabents with advanced disease

UNDERSTANDING DISPENSING ERRORS USING GEN AL FOR GENERATING PATIENT CENTRIC INTO PATIENT COMMUNICATION EXERCISES DISPENSARY WO-K-FLOWS

The Department of Pharmacology has been imparting training to medical Post Graduates Undergraduates, Nursing Cadets & Para medical staff. The d research unit, where researchers utilize rodent models to study...

-Pharmacokinetics & Pharmacodynamics (PK/PD) - Understanding drug absorption, distribution, metabolism, and excretion.

-Toxicology Studies - Identifying potential adverse effects and establishing safe dosage ranges.

•Disease Models Screening of drug in animal models of diabetes, depression, analgesic effect, movement disorders, muscle relaxants, cognitive functio

Clinical research: Dept is actively engaged in translational clinical research with the aim of fostering and furthering personalized medicine. Antiepileptics antibiotics have been some of our focus areas.

Pharmacovigilance and Drug Safety Monitoring. Beyond preclinical research, the department leads pharmacovigilance initiatives, ensuring continues dr assessment of reported or sought ADRs.

Medical teaching technology Dept is also engaged in exploring and curating novel and innovative teaching learning methods, in coordination with NMC

Therapeutic drug monitoring Dept has an HPLC based functional TDM lab. We are undertaking TDM of 11 narrow Therapeutic index drugs. Tech adopt learning and adopting Al in medical curriculum planning, pharmacovigilance and also on patient communication in OPDs. We envisage to automate 60% workflows over next 01 year with own created content.

Future initiatives include:

Expand TDM activities for establishing own population pharmacokinetics models. Expand pharmacovigilance activities by tech infusion and enhanced I curating MCQs and for summarizing patient records.

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The Y Samvaad (Week 1)

1.(a)

Therapeutic

communication: importance & case studies. Intro,

(b) Prescription analysis. Methods and matrix 2.Gen Al: An Intro, Content Creation & Available Gen Al platforms

3.Hand on exercise on patient centric content creation by Gen Al.

4. Creating patient friendly and patient centric prescription summaries using Layman Rx (a home grown web based platform)

5. Al assisted prescription writing: exploring the possibility

6. Symposium on patient communication with specific reference to prescriptions.

7. Patient communication exercise(s).

The Y Suraksha (Week 2)

1.Medication errors: Intro, Importance and Case Studies

2. Living in the Ward: An immersive experience of ward routine from a Matron's POV.

4. Swiss Cheese model of Medication errors (Presentation by students) with interference potentials.

3. Focused Pharmacovigilance in Neurology and Dermatology.

	4.Hands on exercise in making clinical summaries from Hospital Records 5.Pharmacovigilance and assessment of reported ADRs. causality 6.Drug Interaction studies. 7. Presentation on iden
229	**UNDERSTANDING MEDICATION ERRORS IN ACUTE CARE WARDS PHARMACOVIGILANCE AND CAUSALITY ASSESSMENT DRUG INTERACT CLINICAL CASE RECORDS WITH TECH / AL** The Department of Pharmacology has been imparting training to medical Post Graduates Undergraduates, Nursing Cadets & Para medical staff. The d research unit, where researchers utilize rodent models to study... -Pharmacokinetics & Pharmacodynamics (PK/PD) - Understanding drug absorption, distribution, metabolism, and excretion. -Toxicology Studies - Identifying potential adverse effects and establishing safe dosage ranges. •Disease Models Screening of drug in animal models of diabetes, depression, analgesic effect, movement disorders, muscle relaxants, cognitive functic Clinical research: Dept is actively engaged in translational clinical research with the aim of fostering and furthering personalized medicine. Antiepileptics antibiotics have been some of our focus areas. Pharmacovigilance and Drug Safety Monitoring. Beyond preclinical research, the department leads pharmacovigilance initiatives, ensuring continues dr assessment of reported or sought ADRs. Medical teaching technology Dept is also engaged in exploring and curating novel and innovative teaching learning methods, in coordination with NMC Therapeutic drug monitoring Dept has an HPLC based functional TDM lab. We are undertaking TDM of 11 narrow Therapeutic index drugs. Tech adopt learning and adopting Al in medical curriculum planning, pharmacovigilance and also on patient communication in OPDs. We envisage to automate 60% workflows over next 01 year with own created content. Future initiatives include: Expand TDM activities for establishing own population pharmacokinetics models. Expand pharmacovigilance activities by tech infusion and enhanced I curating MCQs and for summarizing patient records. The Y Samvaad (Week 1) 1.(a) Therapeutic communication: importance & case studies. Intro, (b) Prescription analysis. Methods and matrix 2.Gen Al: An Intro, Content Creation & Available Gen Al platforms 3.Hand on exercise on patient centric content creation by Gen Al. 4. Creating patient friendly and patient centric prescription summaries using Layman Rx (a home grown web based platform) 5. Al assisted prescription writing: exploring the possibility 6. Symposium on patient communication with specific reference to prescriptions. 7. Patient communication exercise(s). The Y Suraksha (Week 2)

	1.Medication errors: Intro, Importance and Case Studies 2. Living in the Ward: An immersive experience of ward routine from a Matron's POV. 4. Swiss Cheese model of Medication errors (Presentation by students) with interference potentials. 3. Focused Pharmacovigilance in Neurology and Dermatology. 4.Hands on exercise in making clinical summaries from Hospital Records 5.Pharmacovigilance and assessment of reported ADRs. causality 6.Drug Interaction studies. 7. Presentation on iden
230	**ESSENTIALS OF PRECLINICAL AND CLINICAL RESEARCH** To introduce students to the fundamentals of preclinical and clinical research, providing an understanding of drug development, safety testing, ethics, a interactive sessions, case studies, and hands-on exposure, enabling them to explore career pathways in pharmaceutical research and clinical trials.
231	**NEW BORN SCREENING AND LCMS (LIQUID CHROMATOGRAPH Y MASS SPECTROMETRY)** The Department of Biochemistry at the Armed Forces Medical College, Pune, excels not only in its academic role but also in provic advanced diagnosti the-art diagnostic modalities, the department plays a pivotal role in enhancing pati care and management. Our institution is home to a cutting-edge Metabolorrics Laboratory, featuring advanced LCMS (Liquid Chromatography Mass Spectromet technology. As the forefront of advanced diagnostic research and innovation. We offer a holistic approach prenatal and newborn screening by seamlessly integrating C Metabolomics. This comprehensive approa ensures efficient test management, ultimately improving patient care. With our motto of providing all investiq continuously striving to advance this goal. The Biochemistry Department also plays a crucial role in training medical cadets, postgraduate officers, paramedical staff, nursing cadets, and nursing innovative teaching and learning methods to make biochemistry engaging and accessible for both gradua and postgraduate student. Learning goal: AFMC SIP plan Week 1 Day1 Introduction to Newborn screening program in India: Lecture Day2 Introduction to investigations modalities for newborn screening: Lecture with visit to Hospital Day3 Overview of Investigations: Visit to Biochemistry Laboratory Day4 Demonstration of sample collection by DBS (Dried Blood spot): Lecture followed by demonstration Day5 Sample preparation (Preprocessing): Lecture followed by demonstration

	Day6 Wet Lab: Hands on sample preparation Week 2 Day1 Overview of LCMS: Lecture and demonstration Day2 Sample Injection in LCMS: Lecture and demonstration Day 3 Hands on training on LCMS Day 4 Analysis of LCMS data: Lecture and demonstration Day 6 Analysis of LCMS data along with clinical case discussion: Interactive session Clinical interpretation of data analysis: Interactive session
232	**CLINICAL RESEARCH** Haffkine Institute is a one of the oldest biomedical research institutes in the country. It was established in 1899 and is named after the scientist (Dr. Wal invented the plague vaccine. Since then, Haffkine Institute has emerged as a multi-disciplinary Institute engaged in training, research and testing of vari The Haffkine Institute serves as a premier teaching institution in the field of biomedical sciences. Maharashtra University of Health Sciences (MUHS) ha Training Centre for the PhD degree courses in Medical Microbiology and Medical Virology. Also, the University of Mumbai has affiliated Haffkine Institut Sc. and Ph.D. degree courses in Microbiology, Applied Biology and Organic Chemistry. At Haffkine Institute Research on subjects such as Bacteriology Microbiology and Organic Chemistry is conducted through these degree courses. Using a multi-disciplinary training approach, Haffkine Institute has als Management System & Internal Audit as per ISO 15189:2007 and NABL:112 and has also initiated various training programs. MUHS and Haffkine Insti Opportunity of Summer Internship Program (SIP) to the candidate to : 1.Learn, observe experience and achieve the objectives by completing the SIP. 2 and scientific development activities. 4.Create a meaningful full-time experience. 5.Grab opportunity to gain valuable applied experience. 6.Gain an insi 7.Be able to integrate academic coursework with practical application and skill development: 8.Use the platform to develope network and make connec field of interest. SIP is consisting of multiple elements. The idea is that each intern will work with his/her mentor to create a summer plan that supplemer with other career and scientific development activities. It is a sort of experiential learning that integrates knowledge and theory learned in the classroom development in a professional setting. SIP is unique platform to provide significant exposure to students for observership with broad exposure to the org experience / help to establish the Professional relations in your esteemed organization and vice versa. In a nutshell SIP scheme is aimed to achieve fol summer vacation period of 3rd year ongoing undergraduate student for their value addition through extra-curricular activities. b. To provide a unique exp Candidates from a variety of backgrounds. c. To provide a platform for undergraduate Candidates of various disciplines such as Health science, Engine Sciences, Commerce, Etc., to learn and understand diverse culture and traditional practices. d. To provide the research exposure for those interested in sciences and public health. e. To comply with the provisions prescribed under National Education Policy like cultural awareness and societal well-being from time to time regarding conduct and governing of SIP scheme shall be applicable to all the concern.

233	**MEDICO HISTORICAL STUDIES (WITH SPECIAL REFERENCE TO ARCHEOLOGY, INSCRIPTIONS) & SAHI-PORTAL, COLLECTION AND DIGITI (CDCAMR PROJECT)** **Medico-Historical Studies & Manuscript Digitization** Learning Outcomes: • Apply archaeological and inscriptional evidence to reconstruct medical history. • Utilize the SAHI portal for research and artifact analysis. • Master techniques for the collection, digitization, and preservation of medical manuscripts. • Critically evaluate historical medical sources. • Conduct literature reviews on medico-historical topics. • Develop research questions and methodologies for historical medical studies. • Write scholarly articles and reports on findings from historical research. • Understand the process of digital preservation, and the importance of metadata
234	**DOCUMENTATION OF LOCAL HEALTH TRADITIONS (LHTS) AND E-MEDHA, AYUSH RESEARCH PORTAL, AMAR PORTAL** **Local Health Traditions & Digital Portals** Learning Outcomes: • Employ anthropological methodologies to document local health traditions (LHTs). • Effectively utilize the e-Medha and AMAR portals for research and documentation. • Analyze and interpret data from LHT documentation. • Conduct ethical research involving traditional knowledge. • Critically review existing literature on LHTs. • Formulate research proposals for LHT studies. • Write comprehensive reports and articles on documented LHTs. • Understand the ethics involved in documenting traditional knowledge.
235	**STUDY OF SAMHITAS, LITERARY RESEARCH, FUNDAMENTAL PRINCIPLES IN AYURVEDA, MANUSCRIPTOLOGY.** **Study of Samhitas & Manuscriptology** Learning Outcomes: • Analyze and interpret classical Ayurvedic Samhitas (Charaka, Sushruta, Ashtanga Hridaya). • Apply principles of manuscriptology to study ancient medical texts. • Conduct literary research and critical analysis of Samhita verses. • Critically evaluate translations and interpretations of Samhitas. • Develop research questions based on Samhita literature. • Write scholarly articles and reports on Samhita studies. • Understand the process of translating ancient medical texts

236	**MEDICO HISTORICAL AND LITERARY RESEARCH IN UNANI MEDICINE** **Medico-Historical & Literary Research in Unani Medicine** • Understand the historical development of Unani medicine. • Analyze and interpret key Unani medical texts. • Conduct literary research on Unani medical literature. • Critically review publications related to Unani medicine • Develop research methodologies for Unani medical studies. • Write articles and reports on Unani medical research. • Understand the unique aspects of Unani pharmacopoeia
237	**MEDICO HISTORICAL AND LITERARY RESEARCH IN HOMOEOPATHY MEDICINE** **Medico-Historical & Literary Research in Homoeopathy Medicine** Learning Outcomes: • Understand the historical development of Homoeopathic medicine. • Analyze and interpret key Homoeopathic texts. • Conduct literary research on Homoeopathic medical literature. • Critically review publications related to Homoeopathic medicine. • Develop research methodologies for Homoeopathic medical studies. • Write articles and reports on Homoeopathic medical research. • Understand the unique aspects of Homoeopathic pharmacopoeia
	ADULT HEALTH NURSING **ADULT HEALTH NURSING** Adult Health Nursing Curriculum in BSc Nursing semester system spans in two semesters, semester II and semester IV integrating theory, clinica Some key learning goals of adult health nursing: **Develop a Strong Knowledge Base** • Understand pathophysiology, pharmacology, and medical-surgical conditions. • Learn about common chronic and acute illnesses affecting adults. • Recognize signs and symptoms of diseases and complications. **Enhance Clinical Skills** • Master physical assessments, including vital signs, auscultation, and neurological checks. • Administer medications safely, including IV therapy and injections. • Perform wound care, catheterization, and other essential nursing procedures.

Provide Patient-Centered Care

- Develop therapeutic communication skills to interact with patients and families.
- Educate patients on disease management, lifestyle modifications, and medication adherence.
- Advocate for patient rights and ethical care.

Strengthen Critical Thinking and Decision-Making

- Use the nursing process (assessment, diagnosis, planning, implementation, evaluation).
- Prioritize patient care based on severity and ürgency.
- Respond effectively to emergencies, including cardiac arrest, stroke, and respiratory distress.

Promote Health and Prevent Disease

- Educate patients on preventive screenings
- Encourage lifestyle changes to prevent diabetes, hypertension, and heart disease.
- Recognize early warning signs of complications to prevent hospital readmissions.

Neurology Nursing Goals

- Assess and monitor neurological status using tools like the Glasgow Coma Scale
- Recognize early signs of neurological deterioration, such as changes in consciousness, motor weakness, or pupil changes.
- Manage stroke patients, including thrombolytic therapy, rehabilitation needs, and secondary prevention strategies.
- Care for patients with neurological disorders, including epilepsy, Parkinson's, multiple sclerosis, and traumatic brain injuries.
- Educate patients and families on seizure precautions, stroke recovery, and long-term neuro care needs.

Orthopedic Nursing Goals

- Understand fracture management, including traction, external fixation, and post-op care.
- Prevent and manage complications such as deep vein thrombosis (DVT), fat embolism syndrome, and compartment syndrome. Promote mobility and rehabilitation through collaboration with physical and occupational therapists.
- Educate patients on post-op joint replacement care, including pain management, weight-bearing restrictions, and infection prevention.
- Provide pain management strategies for acute and chronic orthopedic conditions like arthritis and spinal injuries.

Oncology Nursing Goals

- Understand chemotherapy, radiation therapy, and immunotherapy side effects and management.
- Provide symptom management for nausea, fatigue, pain, and neuropathy.
- Recognize oncologic emergencies, such as tumor lysis syndrome, spinal cord compression, and neutropenic fever.
- Offer psychosocial support for patients and families dealing with cancer diagnoses, treatment, and end-of-life care.
- Educate patients on cancer prevention and early detection, including screenings for breast, colon, and lung cancer.

	Critical Care Nursing (ICU/CCU Nursing) Goals • Master advanced hemodynamic monitoring, including central venous pressure (CVP). arterial lines. • Manage mechanical ventilation, including ventilator settings, troubleshooting alarms, and preventing ventilator-associated pneumonia (VAP). • Recognize early signs of sepsis, shock, and multi-organ dysfunction syndrome (MODS) for prompt intervention. • Administer and titrate critical medications, such as vasopressors, sedatives, an insulin drips. • Develop rapid decision-making skills for responding to cardiac arrests, arrhythmia and respiratory distress.ADULT HEALTH NURSING
239	**Ethics/Behavior and society Health** Ethics in health and society focuses on balancing individual autonomy with collective well-being, guided by principles like beneficence (doing good), no justice (fairness), and autonomy. It addresses behavioral, social, and structural factors impacting public health, aiming to reduce disparities and promot through public health policies, research ethics, and professional codes of conduct.
240	**RECIPES IN SOLAR COOKER** A solar cooker is **a type of solar thermal collector**. It “gathers” and traps the Sun's thermal (heat) energy. Heat is produced when high frequency light into low frequency infrared radiation.

241	**CRITICAL CARE MEDICINE** Ashoka Medicover Hospital, among the best hospitals in Nashik, North Maharashtra, stands as the biggest and best multispeciality hospital near you. C and a vast team of super-specialty full-time doctors and consultants have led to a legacy of success. We've excelled during challenging Covid times, ma including deliveries of Covid-positive patients, and performing 1000+ non-Covid emergency surgeries simultaneously. Our high-end diagnostic facilities the most advanced Cathlab with Ivus, OCT, FFR, and 24x7 ultra-modern radio. 1. Cathlab with Ivus 2. FFR 3. 24x7 ultra-modern radiology services offering CT Scan 4. MRI 5. USG 6. Mammography 7. BMD 8. Digital X-Ray 9. advanced USG-guided Gastroscopes 10. Manometry In all specialties like pediatrics, gynecology, gastroenterology, cardiology, neurology, and more, we adopt the latest diagnostic and treatment methodolo advanced laminar flow operation theatres equipped with world-class equipment like Neuro Microscope, Laparoscopic Surgery devices, MISS, and more including separate operation theatres for Obstetrics and Gynecology. Medicover Hospital is renowned as a center of excellence for Organ Transplants, transplants facilitated by a dedicated organ transplant coordinator. Our commitment to providing the best treatment outcomes and enhancing patient ex hospital near you, setting a benchmark in healthcare delivery.

242	**EMERGENCY MEDICINE** Ashoka Medicover Hospital, among the best hospitals in Nashik, North Maharashtra, stands as the biggest and best multispeciality hospital near you. C and a vast team of super-specialty full-time doctors and consultants have led to a legacy of success. We've excelled during challenging Covid times, m including deliveries of Covid-positive patients, and performing 1000+ non-Covid emergency surgeries simultaneously. Our high-end diagnostic facilities the most advanced Cathlab with Ivus, OCT, FFR, and 24x7 ultra-modern radio. 1. Cathlab with Ivus 2. FFR 3. 24x7 ultra-modern radiology services offering CT Scan 4. MRI 5. USG 6. Mammography 7. BMD 8. Digital X-Ray 9. advanced USG-guided Gastroscopes 10. Manometry In all specialties like pediatrics, gynecology, gastroenterology, cardiology, neurology, and more, we adopt the latest diagnostic and treatment methodol advanced laminar flow operation theatres equipped with world-class equipment like Neuro Microscope, Laparoscopic Surgery devices, MISS, and more including separate operation theatres for Obstetrics and Gynecology. Medicover Hospital is renowned as a center of excellence for Organ Transplants, transplants facilitated by a dedicated organ transplant coordinator. Our commitment to providing the best treatment outcomes and enhancing patient ex hospital near you, setting a benchmark in healthcare delivery.
243	**INTEGRATIVE CLINICAL RESEARCH** Integrative clinical research learning goals focus on bridging computational, molecular, and holistic health approaches to improve patient care precision omics data integration, fostering interprofessional collaboration, applying rigorous ethical standards (GCP), and developing patient-centered, evidence- conventional and complementary therapies.

244	**HOW TO LEARN KNOWLEGE OF HEALTH SCIENCES EFFECTIVELY** The MUHS Regional Center in Nagpur operates under the jurisdiction of MUHS Nashik. It's primary focus lies in academic matters, with a particular em of students, especially in Research Methodology & Medical Statistics. Additionaly this regional center provides training for teachers in the field of Medic Research paper writing proficiency is crucial for students & researchers across various academic disciplines, including the medical field. It plays a signi contributing to scientific literature, & fostering critical thinking skills. **Mission Statement.** To empower undergraduate health sciences students with the skills and knowledge required for proficient research paper writing, getting a culture of ac conduct, and contribution to scientific advancement in the medical field. **Vision Statement:** Our vision is to cultivate a community of aspiring health sciences students as researchers who up hold the highest standards of integrity & ethics in thei persuits
245	**INTRODUCTION TO JOURNAL ARTICLE STRUCTURE / RESEARCH PAPER WRITING PROFICIENCY** The MUHS Regional Center in Nagpur operates under the jurisdiction of MUHS Nashik. It's primary focus lies in academic matters, with a particular em of students, especially in Research Methodology & Medical Statistics. Additionaly this regional center provides training for teachers in the field of Medic Research paper writing proficiency is crucial for students & researchers across various academic disciplines, including the medical field. It plays a signi contributing to scientific literature, & fostering critical thinking skills. **Mission Statement.** To empower undergraduate health sciences students with the skills and knowledge required for proficient research paper writing, getting a culture of ac conduct, and contribution to scientific advancement in the medical field. **Vision Statement:** Our vision is to cultivate a community of aspiring health sciences students as researchers who up hold the highest standards of integrity & ethics in thei persuits

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RESEARCH METHODOLOGY & BIOSTATISTICS

Research Methodology and Biostatistics

Duration: 4 Weeks

Program Description:

This Internship program provides participants comprehensive overview of rese methodology and biostatistics. Topics include research design, data coll analysis, and interpretation of results. Participants will engage in pract exercises and workshops to develop essential skills for conducting biomedical re program, participants will be equipped to design studies, anal data, and interpret findings confidently.

Program Outcome:

By the end of the program, participants will emerge with the confidence and proficiency design, conduct, analyze, and communicate research findings e sciences.

Weekly Plan:

Week 1: Foundations of Research Methodology

Introduction to research paradigms and methodologies

* Formulating research questions and hypotheses

* Research ethics and integrity

Literature review and critical appraisal techniques

Week 2: Study Design and Data Collection

- Overview of various study designs: observational, experimental, and quas experimental
- Sampling techniques and sample size calculation
- Data collection methods: surveys, interviews, and observational studies
- Data management and quality assurance
- **Week 3:** Biostatistics: Basic Concepts and Analysis
- Introduction to descriptive and inferential statistics
- Probability distributions and hypothesis testing
- Parametric and non-parametric tests

Week 4: Advanced Biostatistics and Interpretation

- Introduction to regression analysis and correlation
- Interpreting research findings and drawing conclusions
- Application of statistical software for data analysis

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MEDICAL & RADIATION ONCOLOGY

Medical & Radiation Oncology

Duration: 4 Weeks

Program Description: This Internship Program in Medical & Radiation Oncology offers a

comprehensive hands-on learning experience designed to provide participants with practical exposure to the fields of medical and radiation oncology. C
interns will immerse themselves in various aspects of oncology care, gaining valuable insights and skills under the guidance of experienced professiona

Program Outcome: By the end of the internship, participants will have gained practical skills, clinical insights, and a broader understanding of the com
them for further specialization or careers in oncology.

Weekly Plan:

Week 1: Introduction to Oncology

- Overview of medical and radiation oncology
- Introduction to cancer biology and pathology
- Understanding cancer staging and treatment modalities

Week 2: Clinical Rotations

- Rotations in medical oncology clinics
- Observational opportunities in radiation oncology departments
- Exposure to patient consultations and treatment planning processes

Week 3: Treatment Modalities

- Understanding chemotherapy regimens and administration
- Introduction to radiation therapy techniques and equipment
- Discussions on the role of surgery in cancer treatment

Week 4: Multidisciplinary Care and Research

- Interdisciplinary tumor board meetings
- Exposure to palliative care and supportive services
- Introduction to oncology research methodologies and ongoing projects

248	**HOSPITAL ADMINISTRATION** **Hospital Administration** **Duration: 4 Weeks** **Program Description:** This Internship Program on Hospital Administration offers a comprehensive learning experience designed to provide participant dynamic field of healthcare management. Over the course of four weeks, interns will engage in various aspects of hospital administration under the gui and mentors. **Program Outcome:** By the end of the program, interns will have developed practical skills. expanded their knowledge of hospital administration, and g careers in healthcare management and leadership roles. **Weekly Plan:** Week 1: Introduction to Hospital Operations • Overview of hospital structure and organization • Introduction to key departments: administration, finance, operations, human resources, and quality management • Orientation to hospital policies, procedures, and regulatory requirements Week 2: Administrative Functions and Processes • Rotations through different administrative departments • Hands-on experience with tasks such as budgeting, financial analysis, and revenue cycle management • Shadowing hospital administrators to understand decision-making processes and strategic planning Week 3: Quality Improvement and Compliance • Exposure to quality improvement initiatives and patient safety protocols • Participation in regulatory compliance activities, including accreditation surveys and audits • Introduction to performance measurement and benchmarking in healthcare Week 4: Project Work and Professional Development • Collaborative project work on a real-world hospital administration challenge or opportunity • Presentations and discussions on current issues and trends in healthcare management • Guidance on career development and pathways in hospital administration

249	**TRAINING ON USAGE OF EMOTION AL PLATFORM** **About Nihilent** Nihilent Ltd. is a global consulting and technology services company focused on digital transformation, business intelligence, and enterprise solutions. I efficiency and drive growth through innovative technologies like Al, machine learning, and cloud services. **About Emoscape** Emoscape is a category defining platform leading the revolution of emotions by redefining real time emotion detection and calibration. Unlike conventio expressions, Emoscape works by detecting body movements in 3D, from the shoulders and above, capturing nuanced emotional shifts with unparallele **Learning Goals for Medical Students Using Emoscape** 1. Training on usage of Emotion Al Platform 2. Application of Emotion Al in medical practice
250	**APPLICATION OF EMOTION AL IN MEDICAL PROCTICE** **About Nihilent** Nihilent Ltd. is a global consulting and technology services company focused on digital transformation, business intelligence, and enterprise solutions. I efficiency and drive growth through innovative technologies like Al, machine learning, and cloud services. **About Emoscape** Emoscape is a category defining platform leading the revolution of emotions by redefining real time emotion detection and calibration. Unlike conventio expressions, Emoscape works by detecting body movements in 3D, from the shoulders and above, capturing nuanced emotional shifts with unparallele **Learning Goals for Medical Students Using Emoscape** 1. Training on usage of Emotion Al Platform 2. Application of Emotion Al in medical practice
251	**BASIC CLINICAL RESEARCH** Clinical research is a branch of healthcare science that determines the safety and effectiveness (efficacy) of medications, devices, diagnostic products for human use. These may be used for prevention, treatment, diagnosis or for relieving symptoms of a disease. Clinical research is different from clinica established treatments are used, while in clinical research evidence is collected to establish a treatment. The term "clinical research" refers to the entire /biologic, in fact any test article from its inception in the lab to its introduction to the consumer market and beyond. Once the promising candidate or the subjected to pre-clinical studies or animal studies where different aspects of the test article (including its safety toxicity if applicable and efficacy, if poss Clinical research is often conducted at academic medical centers and affiliated research study sites. These centers and sites provide the prestige of the access to larger metropolitan areas, providing a larger pool of medical participants. These academic medical centers often have their internal Institution ethical conduct of medical research. The clinical research ecosystem involves a complex network of sites, pharmaceutical companies and academic re growing field of technologies used for managing the data and operational factors of clinical research. Clinical research management is often aided by e the management and conducting of clinical trials.

252	**ETHICS IN HEALTHCARE** Institute of Medical Education Technology and Teachers' Training, situated at Maharashtra University of Health Sciences, Nashik conducts training pro affiliated health sciences colleges. The centre also endorses innovative teaching learning methodologies for students. The centre addresses holistic de through various initiatives. Communication, Leadership and Ethics for students: Every health sciences graduate is required to fulfil multiple roles like clinician, communicator, team Communication skills, leadership skills and awareness of ethical practice are essential skills for a successful healthcare professional. For training students in these skills, innovative and interactive teaching - learning encounters like debates, role plays, group discussions, seminars, rele planned to provide an enriching and experiential learning opportunity to them. The biodiversity of the beautiful green MUHS Campus and its open learning spaces adds to the learning experience which students will cherish.
253	**OPHTHLMOLOGY** Snehalaya's Caring Friends and Hospital and Research Centre was established in 1992. Initially we catered to the health needs of people living with HIV/AIDS (PLHA) and Children Living with HIV/AIDS (CLHA). All medical facilities including indoor, lab and other investigations was available totally free of cost. In 2017, we expanded our services in a 50 bedded well equipped hospital for any patients in need of medical and surgical care who could not afford to avail these services in private hospitals. The new set up has ICU care, Casualty, Operation theatre, C-Arm Xray, lab and an in-house pharmacy. All services are available at subsidized rates. Surgeries such as cataract, dental procedures and ENT interventions are now available. We also organize Medical health camps in the periphery of 25 kms and in local slums in our well-equipped Mobile Medical van. Besides these facilities, there is a 24X7 ambulance service available. This is one of the health projects of Snehalaya. Besides the hospital we run a multi-specialty clinic in the city in subsidized rates where all the treatments are available under one roof at subsidized rates. The Snehjyot projects work in collaboration with MSACS to create awareness, runs STI and HIV testing clinics at tehsil levels, connects new diagnosed HIV positive patients to the Art center, ensures adherence to ART of patients, conducts programs for awareness about preventions of STI and HIV. In a step further, the CFHRC will soon become a Link ART center for distribution of ART medicines. We already have a FICTC for testing of new and existing patients living with HIV/AIDS. Since we work with the most marginalized sections of the society, the students working at our hospital and clinic will have deeper insights about society health, the importance of medical services for these communities, health behavior of the communities with whom we work

254	**MEDICINE** Snehalaya's Caring Friends and Hospital and Research Centre was established in 1992. Initially we catered to the health needs of people living with HIV/AIDS (PLHA) and Children Living with HIV/AIDS (CLHA). All medical facilities including indoor, lab and other investigations was available totally free of cost. In 2017, we expanded our services in a 50 bedded well equipped hospital for any patients in need of medical and surgical care who could not afford to avail these services in private hospitals. The new set up has ICU care, Casualty, Operation theatre, C-Arm Xray, lab and an in-house pharmacy. All services are available at subsidized rates. Surgeries such as cataract, dental procedures and ENT interventions are now available. We also organize Medical health camps in the periphery of 25 kms and in local slums in our well-equipped Mobile Medical van. Besides these facilities, there is a 24X7 ambulance service available. This is one of the health projects of Snehalaya. Besides the hospital we run a multi-specialty clinic in the city in subsidized rates where all the treatments are available under one roof at subsidized rates. The Snehjyot projects work in collaboration with MSACS to create awareness, runs STI and HIV testing clinics at tehsil levels, connects new diagnosed HIV positive patients to the Art center, ensures adherence to ART of patients, conducts programs for awareness about preventions of STI and HIV. In a step further, the CFHRC will soon become a Link ART center for distribution of ART medicines. We already have a FICTC for testing of new and existing patients living with HIV/AIDS. Since we work with the most marginalized sections of the society, the students working at our hospital and clinic will have deeper insights about society health, the importance of medical services for these communities, health behavior of the communities with whom we work
255	**ANESTHESIOLOGY & INTENSIVE** NAMCO Hospital is run by NAMCO Charitable Trust for the wellbeing of the patients from low socio-economic groups. Hospital is providing exclusive C Transplant, Cardiology, Nephrology & Dialysis and other multi super specialty treatment facility. Now NAMCO Hospital is one stop solution for multispe including intensive and tertiary care. NAMCO Hospital is easily approachable in Panchavati area of the Nashik city, situated in a huge campus of 6.5 ac well equipped with advance medical technology and expertise Consultants from all faculties. We also have a Nursing College imparting the practical cli professional skill. NAMCO Hospital, being NABH Accredited Hospital, is one of the best academic learning centers with ample of clinical material and m
256	**GENERAL MEDICINE & DIABETOLOGY** General medicine is a broad medical specialty focusing on the diagnosis, treatment, and prevention of a wide range of common illnesses, while diabeto medicine that focuses on the diagnosis, management, and treatment of diabetes.
257	**HAEMATOLOGY & BONE MARROW TRANSPLAT** Haematology, the study of blood and blood-forming tissues, utilizes bone marrow transplantation (BMT), also known as hematopoietic stem cell transpl blood disorders and cancers by replacing damaged bone marrow with healthy stem cells.

258	**ORTHOPAEDIC & TRAUMA CARE** Orthopaedic trauma care focuses on treating injuries to bones, joints, muscles, tendons, and ligaments caused by trauma, such as accidents or falls, ar surgical interventions.
259	**HANSEN'S DISEASE** Hansen’s disease (also known as leprosy) is an infection caused by slow-growing bacteria called Mycobacterium leprae. It can affect the nerves, skin, ey mucosa). With early diagnosis and treatment, the disease can be cured. People with Hansen’s disease can continue to work and lead an active life durin once feared as a highly contagious and devastating disease, but now we know it doesn’t spread easily and treatment is very effective. However, if left unt in crippling of hands and feet, paralysis, and blindness.
260	**NURSING EXCELLENCE & ONCOLOGY NURSING** Oncology nursing excellence involves specialized nursing care for cancer patients, encompassing patient assessment, treatment planning, and emotion improving patient outcomes and quality of life.
261	**HOSPITAL ADMINISTRATION & MANAGEMENT** Hospital administration and management encompasses the leadership, planning, and oversight of healthcare facilities, focusing on efficient operations, quality.
262	**Basic of Blood banking** Arpan Blood Centre is a quality-driven transfusion service dedicated to ensuring safe, component-separated and NAT-tested blood supply to patients. We actively promote voluntary blood donation and strictly follow national guidelines for processing. storage and issue of blood and blood components. A significant part of our work involves comprehensive support to thalassemia and sickle cell patients who require lifelong regular transfusions. Our cent thalassemia care including safe transfusion practices, patient counselling and coordination of long-term transfusion management. This provides a stron environment. Learning Goals of the Internship Programme: 1. Basics of Blood Banking: Understanding donor selection, blood collection, component preparation, testing procedures, storage protocols, and quality control systems.

263	**DIGITAL PATHOLOGY AND APPLICATION OF ARTIFICIAL INTELLIGENCE IN PATHOLOGY** Artificial intelligence (Al) assisted reporting has already been introduced in several pathology laboratories in the world as well as in India. The-digital-pathology-workflow in the Dept of pathology. AFMC Pune, has been initiated with the installation of whole slide imager, viewing terminals an Center for Computational Medicine, for developing artificial intelligence (AI)/machine leaming (ML) models in pathology. The objectives of the present ir on experience to students in the digital pathology workflow, build and test Al/ ML models of their own, and validate Al/ML models in real world scenario be as follows Learning goal: Requ red elig by enture for SLC To build and validate custom Al/ ML models in cytology/hematopathology and histopathology Week 1 Types of images obtained in pathology practice hematology, histology & cytology 1 2 Basic features of digital images 3 Analysis of digital images with Python and Numpy library 4 Basic image manipulation with Numpy library 5 Contour detection and object counting 6 Automated morphometry of cells Week 2 7 Binary classification using convolutional neural networks 8 Mult-class image classification 9 Performance charactenstics of an Al/ML model in pathology 10 Keystone project: Malana parasite detection challenge
264	**PAEDIATRICS & NEONATOLOGY (NICU)** Paediatrics is the medical specialty for babies, children, and young people, while neonatology, a subspecialty of paediatrics, focuses on the medical ca ill or premature, often in a Neonatal Intensive Care Unit (NICU)

265	**UNDERSTANDING THE BASIS OF PREDICTION AND PREDICTIVE MEDELLING AND INTRODUCTIONT O PYTHON** Clinical predictive modeling is a valuable tool for medical students, enhancing their ability to provide accurate, timely, and personalized care By integrat education, students can develop the analytical skills necessary for modem evidence-based medicine Clinical predictive modeling plays a crucial ro e in modern medicine by using data-driven algorithms to predict patient outcomes. disease risks, and trea students, understanding and utilizing these models can enhance their clinical reasoning, decision-making, and patient care Medical students can learn personalized treatment plans based on patient-specific factors like genetics, lifestyle, and comorbidities, leading to better putcomes, The Armed Forces Medical College (AFMC), Pune being pioneer inst tute in country has made notable contributions to clinical predictive modeling, part 19 pandemic. AFMC has been proactive in integrating artificial intelligence (Al) and machine learning (ML) into healthcare. Officers with expertise in AI, deputed to AFMC Pune, aiming to harness these technologies for enhanced healthcare delivery and predictive analytics. These initiatives reflect AFMC predictive modeling, enhancing patient care, and contributing to public health strategies The Departments of Clinical Medicine and Medical research, AFMC, Pure offer state of art computational medicine services that enable the medical stu medical datasets for hands-on predictive modeling practice. The Institute also successfully conducted various training sessions and workshop on data s
266	**NUANCES OF DATA COLLECTION FOR PREDICTIVE MEDELLING AND STEPS IN DEVELOPMENT VALIDATION AND DEPLOYMENT OF PREDI** predictive modeling is a valuable tool for medical students, enhancing their ability to provide accurate, timely, and personalized care. By integrating thes students can develop the analytical skills necessary for modem evidence-based medicine. Clinical predictive modeling plays a crucial ro e in modern medicine by using data-driven algorithms to predict patien treatment responses. For medical students, understanding and utilizing these models can enhance their clinical reasoning, decision-making, and patien how predictive models contribute to personalized treatment plans based on patient-specific factors like genetics, lifestyle, and comorbidities, leading to putcomes The Armed Forces Medical College (AFMC), Pune being pioneer inst tute in country has made notable contributions clinical predictive model COVID-19 pandemic. AFMC has been proactive in integrati artificial intelligence (Al) and machine learning (ML) into healthcare Officers with expertise i been deputed to AFMC Pune, aiming to harness these technologies for enhanced healthcare delivery and predictive analyt These initiatives reflect AFM clinical predictive modeling, enhancing patient care, and contribu to public health strategies The Departments of Clinical Medicine and Medical research, AFMC, Pune offer state of art computational medicine serv that enable the medical studer medical datasets for hands-on predictive modeling practice Institute also successfully conducted various training sessions and workshop on data scienc

267	**THE Y SAMVAAD LEARNING GOALS: UNDERSTANDING DISPENSING ERRORS : USING GEN AI FOR GENERATING PATIENT CENTRIC INFO F EXERCISES: CRAFTING ERROR FREE DISPENSARY WO K FLOWS** The Department of Pharmacology has been imparting training to imedical Post Graduates Undergraduates, Nursing Cadets & Para medical staff. The d research unit, where researchers utilize rodent models to study... Pharmacokinetics & Pharmacodynamics (PK/PD) - Understanding drug absorption, distribution, metabolism, and excretion. Toxicology Studies - Identif establishing safe dosage ranges. Disease Models Screening of drug in animal models of diabetes, depression, analgesic effect, movement disorders, muscle relaxants, cognitive functio Clinical research: Dept is actively engaged in translational clinical research with the aim of fostering and furthering personalized medicine Antiepileptics antibiotics have been some of our focus areas. Pharmacovigilance and Drug Safety Monitoring Beyond preclinical research, the department leads phar continues drug safely assessment and causality assessment of reported or sought ADRS. Medical teaching technology. Dept is also engaged in explori Innovative teaching learning methods, in coordination with NMC regional centre at AFMC. Therapeutic drug monitoring: Dept has an HPLC based functional TDM lab. We are undertaking TDM of 11 narrow Therapeutic index drugs. Tech adoption Dept has taken a lead in learning and adopting AI in medical curriculum planning, pharmacovigilance and also on patient communication automate 60% of our teaching and assessment workflows over next 01 year with own created content. Future initiatives include: Expand TDM activities for establishing own population pharmacokinetics models. Expand pharmacovigilance activities by lech Infusion and enhanced I curating MCQs and for summarizing patient records.
268	**THE Y SURAKSHA LEARNING GOALS : UNDERSTANDING MEDICATION ERRORS IN ACUTE CARE WARDS PHARMACOVIGILANCE AND CAU INTERACTION STUDIES SUMMARIZING CLINICAL CASE RECORDS WITH TECH/AI** The Department of Pharmacology has been imparting training to imedical Post Graduates Undergraduates, Nursing Cadets & Para medical staff. The d research unit, where researchers utilize rodent models to study... Pharmacokinetics & Pharmacodynamics (PK/PD) - Understanding drug absorption, distribution, metabolism, and excretion. Toxicology Studies - Identif establishing safe dosage ranges. Disease Models Screening of drug in animal models of diabetes, depression, analgesic effect, movement disorders, muscle relaxants, cognitive functio Clinical research: Dept is actively engaged in translational clinical research with the aim of fostering and furthering personalized medicine Antiepileptics antibiotics have been some of our focus areas. Pharmacovigilance and Drug Safety Monitoring Beyond preclinical research, the department leads phar continues drug safely assessment and causality assessment of reported or sought ADRS. Medical teaching technology. Dept is also engaged in explori Innovative teaching learning methods, in coordination with NMC regional centre at AFMC. Therapeutic drug monitoring: Dept has an HPLC based functional TDM lab. We are undertaking TDM of 11 narrow Therapeutic index drugs. Tech adoption Dept has taken a lead in learning and adopting AI in medical curriculum planning, pharmacovigilance and also on patient communication automate 60% of our teaching and assessment workflows over next 01 year with own created content. Future initiatives include: Expand TDM activities for establishing own population pharmacokinetics models. Expand pharmacovigilance activities by lech Infusion and enhanced I curating MCQs and for summarizing patient records.

269	**COMPREHENSIVE APPROACH TO OBESITY : ASSESSMENT, MANAGEMENT, AND OBESITY MANAGEMENT AND PREVENTION** Obesity is a complex, multifactorial disease with significant global health implications. This training module aims to equip undergo medical students with skills for the assessment, management, and prevention of obesity. Students w to define and classify obesity using BMI, waist-hip ratio, and advanced b techniques to assess muscle distribution (e.g., bioelectrical impedance analysis, DEXA scans). Understanding the pathophysiology, including genetic, h will provide insights into disease mechanisms. Clinical assessment will focus on history-taking, examination, and investigations to identify complications diseases. Management strategies w lifestyle modifications, pharmacotherapy, bariatric surgery, and emerging therapies such as GLP-1 receptor agonis students will explore preventive strategies, including patient education and public health interventions. This short-term ensures a holistic approach, prep clinical practice. Dept of Internal medicine & Dept of Endocrinology art facility where all above facilities are available.
270	**PALLIATIVE CARE** Palliative care is specialized medical care focused on relieving suffering and improving the quality of life for individuals with serious illnesses and their fa
271	**EPIDEMIOLOGY AND SURVEILLANCE** ICMR-NARI is a Regional Institute under Integrated and Enhanced Surveillance & Epidemiology (IESE) of HIV, Sexually Transmitted Infections, and related co- morbidities under the National AIDS and STD Control Programme Phase V. We provide technical support and guidance for planning, implementation and monitoring of the HIV Sentinel surveillance (HSS), National Integrated Bio-behavioural Surveillance among High-Risk Group Population, Integrated Bio-behavioural Surveillance among People Living with HIV (PLHIV) in India, Mortality surveillance among PLHIV, Programmatic Mapping and Population Size Estimation, and HIV burden and Estimation for Maharashtra, Gujarat, Goa, and Dadra and Nagar Haveli and Daman and Diu. The SIP students will be accommodated under the Division of Epidemiology of ICMR-NARI. They will be oriented to the methodology, ethical considerations, field work and data management and analysis for the national level surveillance and epidemiology activities mentioned above.
272	**Clinical skillfulness in Ayurvedic hospital management** Clinical skillfulness in Ayurvedic hospital management refers to the ability of healthcare professionals to effectively diagnose, treat, and manage patient practices within a hospital setting. This encompasses a wide range of skills, including diagnosis, treatment planning, herbal knowledge, patient commur

273	**CANCER BIOLOGY** Several decades of research have sought to characterize tumor cell metabolism in the hope that tumor-specific activities can be exploited to treat cance Warburg's seminal observation of aerobic glycolysis in tumor cells, most of this attention has focused on glucose metabolism. However, since the 1950 recognized the importance of glutamine (Q) as a tumor nutrient. Glutamine contributes to essentially every core metabolic task of proliferating tumor cel supports cell defenses against oxidative stress and complements glucose metabolism in the production of macromolecules. The interest in glutamine m further by the recent findings that c-myc controls glutamine uptake and degradation, and that glutamine itself exerts influence over a number of signalin growth. These observations are stimulating a renewed effort to understand the regulation of glutamine metabolism in tumors and to develop strategies t cancer. In this study we review the protean roles of glutamine in cancer, both in the direct support of tumor growth and in mediating some of the comple metabolism that are characteristic of tumor progression.
274	**MEDICAL ONCOLOGY (CAM)** Medical oncology is a type of medicine that focuses on the diagnosis, treatment, and prevention of cancer. A medical oncologist's job is to take care of chemotherapy, hormone therapy, targeted therapy, or immunotherapy. A medical oncologist will work with other doctors to create a treatment plan that' cancer diagnosis to you, including the type and what stage you have. They'll also help you manage your cancer symptoms and treatment side effects. Y oncologist right after you've been diagnosed with cancer. This is usually one of the first steps of your cancer journey. They can help you understand you of your cancer treatment. You'll also want to see a medical oncologist for any questions you might have. You may also see other oncologists depending and what sort of a treatment plan you want. There are three main types: A medical oncologist will treat your cancer with chemotherapy, hormone therap immunotherapy. A radiation oncologist will treat your cancer with radiation therapy. A surgical oncologist uses surgery to remove tumors. They also per a tiny piece of tissue so they can test it.
275	**POLLUTION HEALTH HAZADRS** The main pathway of exposure from air pollution is through the respiratory tract. Breathing in these pollutants leads to inflammation, oxidative stress, im mutagenicity in cells throughout our body, impacting the lungs, heart, brain among other organs and ultimately leading to disease.
276	**CELL BIOLOGY AND MEMBRANE TRANSPORT** Cell biology and membrane biology, a crucial area of study, focuses on the structure, function, and behavior of cells, particularly their membranes, whic control the movement of substances in and out of the cell.

277	**MOLECULAR & IMMUNOLOGY METHODS FOR DIAGNOSIS OF INFECTIOUS DISEASES** Since the late 19th century, clinical microbiology has evolved alongside our basic understanding of infectious diseases (1). These disciplines trace their and Lister, from whom Germ Theory introduced the revolutionary concept that particular microbes are responsible for specific infections (2). As we appr relationship between microbes and human physiology can be complex, in ways that are still not fully decoded. Nevertheless, Germ Theory is a foundati and the overarching mission of the clinical microbiology laboratory remains much unchanged: to identify bacterial, fungal, viral, and parasitic pathogens For over 100 years, the microscope, microbial culture, and immunodiagnostics served as cumulative sources of laboratory data for diagnosing infection standards for many pathogens, and there is little reason to expect that their role will disappear. What has changed dramatically in recent decades are c stemming from the advent of molecular biology. In 1944, Avery, MacLeod, and McCarty demonstrated that DNA purified from a type III strain of *Strepto* virulence onto a nonpathogenic type II strain (3). The ability of DNA to encode genetic data stems from the structure-function of its component bases, s Watson and Crick (and building on the work of many others) (4). This mechanism for information-storage creates inherent diagnostic possibilities, such human versus microbial, predicting microbial phenotypes from their genotypes, and classifying organisms taxonomically (5). Of course, to bring these a commensurate tools were needed to detect DNA in a targeted manner. Accordingly, the last 40 years have witnessed a sea change with the development of ultra-sensitive techniques that leverage DNA/RNA as diagnostic a evolved from *mere concepts* to *indispensable tools* in the practice of clinical microbiology (6). The advent of genetic (and now genomic/multi-omic) knov redefining the information that laboratories can provide and the speed at which they can provide it. The present article thus serves as an opportunity to molecular testing, now entailing nucleic acid detection, quantification, and sequencing, has come to shape the management of infectious diseases. We review on the techniques themselves, as well as their thematic implications for laboratory operations and patient care. Driven by advances in analytic te biology, these themes are critically interconnected with clinical logistics and even financial/regulatory matters, reflecting the pervasive role of molecular specialized care.
278	**KSHARSUTRA AND MIPP (MINIMAL INVASIVE PARA SURGICAL PROCEDURE** Ksharsutra is the specialized, most famous, and most reliable, minimal invasive surgical procedure for Piles, Fissure in Ano, fistula in Ano, Sentinel tags has about to null recurrence rate after procedure (about 1-2 % in 1000 cases). the best part is that this could be done in O.P.D in most cases and there procedure. in maximum cases anaesthesia also not needed or the procedure may be done under local anaesthesia. The Kshar means alkaline medicines (tends to be chemical cauterizing media) and the Sutra means thread. The thread smeared in Kshar is called Ksh The Kshar (cauterizing media) has alkaline pH and possesses cauterizing (cutting), disinfection, wound healing properties so it cuts, cleans, heals in sa Kshar can also be used as internal medicine (*Paneey Kshar*) for some ailments but that Kshar is different from the Kshar of Kshar sutra.
279	**STRENGTH AND CONDITIONING** Strength and Conditioning (S&C) is the selection and development of dynamic/static exercises used to improve physical performance. Whilst it originall used in both the sporting world and more generally. S&C is used to develop every area of the body and improve the way a person moves, with the intention of enhancing sporting or physical performance. Research demonstrates that correct and appropriate training can improve physical performance. It also shows that incorrect and inappropriate training the body moves and performs, whether that's in daily life e.g., walking the dog, or at hobby or sport

280	**ESSENTALS OF PRECLINICAL AND CLINICAL RESEARCH** SIP Centre- The Department of Pharmaceutical Medicine (DPM) at Maharashtra University of Health Sciences (MUHS), Nashik, is dedicated to advancing educatio development, clinical research, and regulatory sciences. DPM bridges the gap between academia, industry, and healthcare research, fostering innovati The SIP Center at DPM serves as a training hub for undergraduate students from health sciences, pharmacy, and biomedical disciplines, providing the experiences in preclinical and clinical research, ethical considerations, and regulatory affairs. The center aims to: Equip students with practical knowledge of drug discovery and development Provide exposure to real-world research methodologies Foster critical thinking and ethical awareness in clinical trials Create a foundation for future careers in pharmaceutical and biomedical research With experienced faculty and a commitment to high-quality education, the SIP Center at DPM is an ideal platform for students to explore the dynamic fi insights into the science and ethics of medicine development. Learning Goals- To introduce students to the fundamentals of preclinical and clinical research, providing an understanding of drug development, safety testing, ethics, a interactive sessions, case studies, and hands-on exposure, enabling them to explore career pathways in pharmaceutical research and clinical trials. Key Takeaways: Foundational knowledge of preclinical & clinical research Understanding of ethical principles & regulatory frameworks Hands-on exposure to study designs & clinical trial documentation Exploration
281	**CRITICAL READING/UNDERSTANDING OF SAMHITAS** Importance of the Samhitas can be Catego- rize in following categories: • **In maintaining personal & spiritual health** • In improving our social life & ou diseases in present era A.

282	**MEDICAL GENETICS** The clinical genomics section is an integral part of the clinical and laboratory services at AFMC. The clinical departments, Dept of laboratory medicine a provide advanced clinical and diagnostic services to its dependent clientele and also onducting various intramural and extra mural research projects. Ap the patients, the clinical genomics ection is also involved in training Postgraduate residents, officers, cadets, nursing and paramedical staff. The institute services wherein transmission electron microscopy carried out for patients suffering from renal, ermatological and neuromuscular disorders. The labora facilities for flow cytometry immunophenotyping, aryotyping. RT -PCR, FRQ PCR, Methylation Study facilities, DNA sequencing, morphometry, immuno uorescence (DIF) and fluorescence in-situ hybridization (FISH). These specialized testing facilities are exclusive and are extended to all medical establi hospitals of India. The multispecialty clinical genetics section is also involved in routine creening camps for management of lifestyle diseases and cance of Department of laboratory medicine and MRU, AFMC, Pune offer diagnostic services that enable the identification of enomics abnormalities in patient abnormalities. The laboratory part of Clinical Genomics section at AFMC nctions with close collaboration with Clinical counterparts comprising departme Obstetrics, Assisted productive treatment facilities, Paediatrics and related subspecialities, Endocrinology, Dental, Cardiology, Respiratory medicine, Ha Counsellors are employed to help the affected population. The institute also successfully conducted various raining sessions and workshop on genomic
283	**BLOOD BORNE VIRAL INFECTIONS (HIV HEPATITIS B AND C)** HIV and hepatitis B are **infections that you can get from having sex, or from contaminated blood (through sharing needles during drug use) or** Hepatitis C is also a bloodborne virus.
284	**CLINICAL PREDICTIVE MODELLING** Clinical predictive modeling uses statistical methods and data analysis to estimate an individual's risk of developing or having a specific disease or heal decision-making and patient management.
285	**MEDICATION SAFETY AND THERAPEUTIC COMMUNICATION** Effective communication is essential for patient/medication safety. Pharmacists should do their due diligence to ask the appropriate questions to minimi and reduce the risk of errors.

286	**CLINICAL RASASHASTRA** Brief Description Of SIP centre and each Learning Goal: About SIP Centre Rasayani Biologics Rasayani Biologics is a pioneering organization deeply rooted in the research and development based on Traditional sciences of Ayurveda (especially I in chronic and critical illness including Ayurved oncology. Leveraging centuries-old wisdom and modern scientific advancements, the company is dedica innovative, holistic solutions for new age healthcare challenges. Rasayani Biologics integrates traditional Rasashastra formulations, which utilize minera contemporary research to create safe and effective therapies. Our expertise in Ayurved oncology and critical illness management through Rasashastra personalized, patient-centric approach, aiming to enhance quality of life. With a strong commitment to evidence-based practices, Rasayani Biologics is Ayurvedic knowledge with modern healthcare needs. Clinical Rasashatra Summer internship program in Clinical Rasashastra, designed for students and professionals passionate about utilizing traditional Ayurvedic wisdom in challenges. This immersive program offers a unique opportunity to explore the profound clinical applications of Rasashastra-the ancient science of mine formulations-in managing chronic and critical illnesses. Participants will gain hands-on experience in evidence-based, patient-centric approaches, learn combines centuries-old knowledge with cutting-edge research to develop innovative, holistic therapies for patients with various chronic and critical illnes interns will delve into the clinical utility of Rasashastra, focusing on its role in fulfilling unmet clinical needs and addressing new-age healthcare challeng understanding the transformative potential of Ayurveda in modern medicine.
287	**CAREER OPPORTUNITIES AYURVEDA** Ayurveda offers diverse career opportunities, including clinical practice, wellness centers, research, teaching, and the pharmaceutical industry, with gro practitioner
288	**EDUCATION** Education, in its broadest sense, is the process of learning and acquiring knowledge, skills, and character traits, whether through formal schooling, non- experiences.
289	**RESEARCH** Research is defined as **the creation of new knowledge and/or the use of existing knowledge in a new and creative way so as to generate new c understandings**. This could include synthesis and analysis of previous research to the extent that it leads to new and creative outcomes.
290	**PRI- CLINICAL RESEARCH** Preclinical research involves studying a drug or treatment in cells and animals before human clinical trials, focusing on safety, efficacy, and potential sic promising candidate for human testing
291	**TOXICOLOGY** Toxicology is the study of how substances affect living organisms. It includes the study of toxic substances, their effects, and how to treat them.

292	**ANIMAL AND CELLULAR MODELS** Animal and cellular models are essential tools in biomedical research, allowing scientists to study biological processes and diseases in a controlled env to understand and potentially treat diseases.
293	**PHARMACOLOGY** Pharmacology is the scientific study of drugs, encompassing their origin, composition, effects on living systems, therapeutic uses, and toxicology, with t pharmacokinetics (how the body handles drugs) and pharmacodynamics (how drugs affect the body).
294	**DIGITALIZATION OF INSTITUTE** Digitalization, or the integration of digital technologies, is transforming educational institutions by enhancing teaching, learning, research, and governan upgrades, digital competence, and a shift in mindset.
295	**PREVENTIVE ONCOLOGY IN AYURVEDA** Preventive Ayurveda emphasizes **regular detoxification to eliminate accumulated toxins (ama) from the body**. Panchakarma, a set of therapeutic rejuvenates tissues, and prevents the onset of diseases caused by toxin buildup.
296	**Biostatistics & Data Analysis** Biostatistics & Data Analysis In this learning goal students will be able to apply Statistical methods & analytical techniques to biological, medical & public health raw data information goal provides the necessary tools for designing experiments, managing data quality & conducting rigorou analysis to support research finding. In this goad Student will be able to handle medical related patients' information, its importance & how to create master chart, data cleaning, dale, validly medical science. dales, students will get informative & hands on training how to analyses He data using Microsoft excel & statistical Software in a easy
297	**YOGA & CLINICAL PRACTICES & PANCHKARMA AND AYURVEDA** Based on the principles of the five elements of nature, Ayurveda can help remove toxic effects of present-day life style issues, unhealthy food, harmful r changes. This ancient science works on bodily aspects such as Dosha (basic body energy), Dhatu (body tissue), and Mala (excretion).
298	**UTILITY OF CYTOGENETICS AND MOLECULAR GENETICS IN CLINICAL PRACTICE 2** The development of microarray-based comparative genomic hybridization (array CGH) methods represents a critical new advance in molecular cytoger driven a technical convergence between molecular diagnostics and clinical cytogenetics, questioned our naïve understanding of the complexity of the h practice of medical genetics, challenged conventional wisdom related to the genetic bases of multifactorial and sporadic conditions, and is poised to imp of contemporary molecular cytogenetic techniques in research and diagnostics has resulted in the identification of many new syndromes, expanded our spectrum of recognizable syndromes, elucidated the genomic bases of well-established clinical conditions, and refined our view about the molecular me aberrations. Newer methodologies are being developed, which will likely lead to a new understanding of the genome and its relationship to health and d

299	**UTILITY OF CYTOGENETICS AND MOLECULAR GENETICS IN CLINICAL PRACTICE -1** The development of microarray-based comparative genomic hybridization (array CGH) methods represents a critical new advance in molecular cytoger driven a technical convergence between molecular diagnostics and clinical cytogenetics, questioned our naïve understanding of the complexity of the h practice of medical genetics, challenged conventional wisdom related to the genetic bases of multifactorial and sporadic conditions, and is poised to imp of contemporary molecular cytogenetic techniques in research and diagnostics has resulted in the identification of many new syndromes, expanded our spectrum of recognizable syndromes, elucidated the genomic bases of well-established clinical conditions, and refined our view about the molecular me aberrations. Newer methodologies are being developed, which will likely lead to a new understanding of the genome and its relationship to health and d
300	**AYURVEDIC AUSHADHIKARAN** In the context of Ayurveda, "aushadhikaran" () refers to the process of preparing medicines or herbal formulations. It's a crucial aspect of Ayurvedic clin (Ayurveda practitioners) are responsible for preparing medicines tailored to their patients' specific needs.
301	**Vaidyashala Kaushalam** Vaidyashala Kaushalam" ( ) in the context of Ayurveda refers to a skilled practitioner or expert in the field of Ayurvedic medicine, specifically someone v "vaidyashala" (), which means a place where Ayurvedic treatments are provided. It essentially denotes a highly proficient and knowledgeable individual medicine.
	OBG NURSING **<u>OBG NURSING</u>** OBG Nursing Curriculum in BSc Nursing semester system spans in two semesters, semester VI and semester VII integrating theory, clinical practic key learning goals of OBG nursing: **Develop a Strong Knowledge Base in Maternal Health** • Understand female reproductive anatomy and physiology. • Learn about normal pregnancy, fetal development, and childbirth. • Study common gynecological disorders (PCOS, endometriosis, fibroids, STIs). • Recognize high-risk pregnancies (gestational diabetes, preeclampsia, placenta previa). **Master Clinical Skills for Pregnancy & Childbirth Care** • Perform antenatal (prenatal) assessments (fundal height, fetal heart rate, Leopold's maneuvers). • Assist in labor and delivery, including normal and complicated births. • Provide immediate newborn care (APGAR scoring, resuscitation, thermoregulation). • Manage postpartum care (bleeding assessment, breastfeeding support, maternal bonding). **Identify & Manage Obstetric Emergencies**

302	• Recognize warning signs in pregnancy (eclampsia, preterm labor, hemorrhage). • Assist in C-sections, forceps, and vacuum deliveries. • Provide care for preterm and high-risk neonates (NICU support, jaundice management). • Understand postpartum complications (PPH, infections, thrombosis, mental health). **Strengthen Critical Thinking & Decision-Making** • Apply the nursing process in maternity and gynecological settings. • Monitor fetal well-being using cardiotocography (CTG/FHR monitoring). • Respond to obstetric codes (shoulder dystocia, umbilical cord prolapse, uterine rupture). • Manage patients undergoing gynecological surgeries (hysterectomy, ovarian cyst removal). **Provide Holistic & Patient-Centered Care** • Educate women on family planning, contraception, and fertility treatments. • Support mothers' mental health (postpartum depression, anxiety, grief counseling). • Offer compassionate care for pregnancy loss and stillbirth. • Promote women's sexual and reproductive health awareness. **Collaborate in an Interdisciplinary Team** • Work with OBGYNs, midwives, neonatologists, and lactation consultants. • Understand legal and ethical issues in maternity care (informed consent, abortion rights). • Maintain accurate documentation (partograph, birth records, labor notes). **Promote Community & Preventive Health** • Educate women on maternal nutrition, prenatal vitamins, and lifestyle changes. • Support breastfeeding promotion and infant immunization. • Conduct cervical and breast cancer screenings (Pap smear, mammograms). • Address adolescent reproductive health and menopausal care.
303	**PHYSICAL** Physical education (PE), often abbreviated as "Phys. Ed." or "gym class," is a school subject that focuses on developing students' physical fitness, mot healthy living through physical activity and movement. It's designed to promote both physical and mental well-being, and is typically taught in schools fr
304	**GERIATRIC CARE** Geriatric care, also known as geriatric medicine, is a specialized field of healthcare focused on the unique needs of older adults. It aims to prevent, mar disabilities that can arise with age, while also focusing on improving quality of life and maintaining independence. Geriatric care encompasses various a nursing care, and geriatric care managemen

305	**MENSTRUAL HYGIENE** Menstrual hygiene involves using clean materials to absorb or collect menstrual blood, changing them regularly, practicing good personal hygiene, and materials. It's crucial for preventing infections and promoting overall health and well-being. Here's a more detailed look at menstrual hygiene
306	**Nursing Care** Nursing care is the foundational, patient-centered support provided by nurses to improve health, manage illnesses, and ensure quality of life through a Diagnosis, Planning, Implementation, and Evaluation (ADPIE). It encompasses skilled physical, emotional, and preventive care tailored to individual pa often documented through nursing care plans.
307	**Applied Transfusion Sciences** Arpan Blood Centre is a quality-driven transfusion service dedicated to ensuring safe, component-separated and NAT-tested blood supply to patients. We actively promote voluntary blood donation and strictly follow national guidelines for processing. storage and issue of blood and blood components. A significant part of our work involves comprehensive support to thalassemia and sickle cell patients who require lifelong regular transfusions. Our cent thalassemia care including safe transfusion practices, patient counselling and coordination of long-term transfusion management. This provides a stron environment. Learning Goals of the Internship Programme: **Applied Transfusion Science:** Practical exposure to immunohematology, crossmatching, antibody screening, transfusion reactions, clinical transfusion practices, and rational use of b

308	**BIOMEDICAL WASTE MANAGEMENT** About Siddhagiri Nursing Institute, located in Kaneri, Kolhapur, is a renowned nursing education institution in Maharashtra. Established in 2011, the inst nursing education to students. Nursing Courses The institute offers the following nursing courses: 1. Auxiliary Nurse and Midwife (ANM): A 2-year undergraduate course with 20 seats available. 2. We Have started GNM Course from 2022 and the first batch will be completing the course in near future 2025 3. B.Sc. Nursing: A 4-year undergraduate course with an initial intake capacity of 40 seats, which has been increased to 60 seats The first batch of BSc 2020, have successfully completed the course and are currently working in specialty hospitals across Maharashtra. 4. The institute has received permission to start the M Sc Nursing course, which will commence soon. 5. Post Basic B.Sc Nursing: The institute is awaiting permission to start the course, which is expected to commence shortly. tudent Activities 1. Students of Siddhagiri Nursing Institute participate in various extracurricular activities, including: 2. 1. Medical Camps: Students participate in medical camps organized by the institute's multi-specialty hospital, providing healthcare services to the co 3. 2. Sports Competitions: Students engage in sports competitions, promoting physical fitness and teamwork. 4. 3. Health Education: Students educate patients and communities on maintaining comprehensive health through role-plays, skits, puppet shows, and Covid-19 Frontline Warriors: During the COVID-19 pandemic, students worked tirelessly as frontline warriors, providing essential healthcare services to those in need. Achievements The institute takes pride in its achievements, including: completed the course and are 1. Successful Completion of Course: The first batch of B.Sc Nursing students successfully employed in specialty hospitals across Maharashtra. 2. Increased Intake Capacity: The institute has received permission to increase the intake capacity for the B Sc Nursing course from 40 to 60 seats. 3. I institute has received permission to start the MSc Nursing course and is awaiting permission
309	**AS NABH ACCREDIATED HOSPITAL HOW TO DEVELOP SOP & STANDARD TREATMENT TO PATIENT & LEGAL KNOWS** AS NABH ACCREDIATED HOSPITAL HOW TO DEVELOP SOP & STANDARD TREATMENT TO PATIENT & LEGAL KNOWS
310	**PANCHAKARMA** Panchakarma is a comprehensive five-step Ayurvedic detoxification and rejuvenation program designed to remove deep-seated toxins (*Ama*) and balar and Kapha. It typically involves personalized, multi-day treatments—including oil massages, steam therapy, and elimination techniques—aimed at impr overall well-being.
311	**STANDARD DIAGNOSIS , MANAGEMENT OF NEW ERA DISESES BY AYU. TREATMENT & UTTARBASTI** Ayurvedic diagnosis and management of "new era diseases" involves understanding the root cause of imbalances in the body's natural systems (Tridos individualized treatment plans, including Uttarbasti, a specialized therapy. Uttarbasti is used to treat reproductive and urinary health issues.

312	**INSURANCE EMPANELMENT OF VARIOUS INSURANCE COMPANY INCLUDING CGHS** To get information on which hospitals are empanelled with various insurance companies, including CGHS, you can typically find this information on the companies or hospitals. Some hospitals also have dedicated sections listing their empanelled companies, says Avanti Hospital. You can also look for ir ask your CGHS provider.
313	**De- addiction Management** **De-Addiction Management** The learning goals in de-addiction management aim to equip individuals with the skills and knowledge necessary to overcome addiction and maintain s Understanding the nature of addiction: Recognizing the physical, psychological, and social aspects of addiction and its impact on individuals' lives. Developing coping strategies: Learning healthy ways to manage stress, cravings, and negative emotions. Building self-worth and resilience: Promoting self-esteem and emotional regulation to face life post-addiction. Preventing relapse: Equipping clients to recognize and respond to cues and triggers that may lead to relapse. Engaging in ongoing support: Participating in therapy, support groups, and lifestyle adjustments to ensure long-term recovery. These goals are essential for individuals seeking to regain control over their lives and lead a healthier, drug-free future.
314	**Exposure to thalassemia care and management** Arpan Blood Centre is a quality-driven transfusion service dedicated to ensuring safe, component-separated and NAT-tested blood supply to patients. We actively promote voluntary blood donation and strictly follow national guidelines for processing. storage and issue of blood and blood components. A significant part of our work involves comprehensive support to thalassemia and sickle cell patients who require lifelong regular transfusions. Our cent thalassemia care including safe transfusion practices, patient counselling and coordination of long-term transfusion management. This provides a stron environment. Learning Goals of the Internship Programme: **Exposure to Thalassemia Care and Management:** Hands-on understanding of transfusion support in thalassemia patients, pre- and post-transfusion care, monitoring for reactions, patient counselling, an
315	**Psychometric Testing & Career Guidance** Psychometric testing and career guidance are essential tools for helping individuals make informed decisions about their future careers. Here are some Purpose: Psychometric tests provide data-driven insights into an individual's strengths, interests, and personality traits, helping them align their career d Components: These tests typically assess cognitive abilities, personality traits, interests, and values, guiding individuals toward suitable career paths. Benefits: By identifying strengths and preferences, psychometric tests can reduce career confusion and help individuals avoid pursuing courses or jobs Accessibility: These assessments are increasingly accessible to students from all backgrounds, making them valuable resources for career planning. Personalized Guidance: Psychometric tests offer tailored career recommendations, helping individuals explore diverse fields and make confident decisi

316	**Psychotherapy & Counseling** In psychotherapy and counseling, key learning goals typically include: Enhancing self-awareness: Understanding one's thoughts, feelings, and behaviors to make informed decisions. Building self-acceptance: Fostering a compassionate understanding of oneself and embracing strengths and imperfections. Improving emotional regulation: Learning strategies to manage emotions effectively, which can include mindfulness and coping techniques. Strengthening resilience: Developing the ability to bounce back from challenges and cope with life's difficulties. Setting clear, measurable goals: Establishing specific objectives to track progress and stay motivated throughout the therapeutic journey. These goals serve as a roadmap for the therapeutic process, guiding both the therapist and client in achieving personal growth and improved mental he
317	**MANAGEMENT OF GASTROINTESTINAL TRACK** Management of the gastrointestinal (GI) tract involves a comprehensive approach combining a high-fiber, balanced diet, adequate hydration, regular ex prevent and manage conditions like constipation and reflux. Clinical management includes over-the-counter aids, prescription medications (PPIs, antac treat specific disorders like irritable bowel syndrome (IBS) or infections.
318	**CLINICAL RESEARCH IN GYNAECOLOGY AND FERTILITY MANAGEMENT** Shri Maulivishwa Ayurved Clinic is dedicated for research in Gynaecology and fertility management for 27 years. Implementing basic concepts of ayurv teenagers and women in PCOS /PCOD. Exploring Dosha, Dhatu, Mala concepts helps in management of infertility in both male and females. The clinic Panchakarma and one Uttarbasti simultaneously. The hospital has a capacity to admit 6 patients. Separate panchakarma unit and Uttarbasti unit. Stude knowledge of assessing the cases and deciding exact treatment plans for different Gynaecological cases. Fertility management in Low AMH, Endometr Adenomyosis, Low sperm count, Azoospermia will be explored in SIP. At SMV Ayurveda more than 2000 fertility cases has been treated successfully ti
319	**Medicines their actions Medicines Preparations** Medicines are chemical compounds used to diagnose, treat, or prevent diseases by interacting with biological receptors at a cellular level, often by inhil expression. They are prepared in various dosage forms—including tablets, capsules, liquids, and injections—by mixing active ingredients with excipient release.
320	**Aahar, Vihar, Dietplan Patny Apatnya** Aahar (diet) and Vihar (lifestyle) are foundational pillars in Ayurveda for achieving holistic health by aligning body, mind, and spirit. Pathya (wholesome) Apathya (unwholesome) habits lead to disease. Key practices include eating seasonal, nutritious foods and adhering to consistent daily routines.
321	**Panchakarma, Upkarmas** Panchakarma is an Ayurvedic detoxification and rejuvenation process consisting of five main actions (Vamana, Virechana, Nasya, Basti, Raktamoksha and balance doshas. It involves Purvakarma (pre-procedures like Snehana/oil massage and Swedana/sweating) and Paschatkarma (post-procedures), improving immunity.

322	**TRADITIONAL HEALTHCARE** Government Ayurvedic College, Jalgaon provide a graduation degree in Ayurveda stream. It imparts scientific and quality education to the students and graduates in order to approach well being of society. Our mission is To provide high quality Ayurveda education to the students To provide high quality propogate health and preventive measures of Ayurveda To conduct research on Ayurveda to propogate evidence based Ayurveda. This institute provide a wide variety of Ayu. treatments for acute and chronic medical conditions. It has skill lab for educational purpose . It has operation facilities which proride modern diagnostic Surgical Services.
323	**HEALTH RESEARCH METHODS** Understanding the principles and methodologies of both qualitative and quantitative research, ensuring a comprehensive approach to health research. Developing practical skills in conducting research, including defining research questions and translating them into actionable studies. Learning about ethical considerations in health research, which is crucial for maintaining trust and credibility in findings. Gaining insights into qualitative research methods, such as interviews and focus groups, to explore complex human experiences in healthcare settings. Familiarity with reporting guidelines and the importance of translating research findings into practice for health improvement. These goals are essential for health researchers to effectively contribute to the field and improve health outcomes
324	**INFERTILITY, ANC, PNC MANAGEMENT THROUGH AYURVEDA AND PANCHKARMA, GARBHASANSKAR** GARBHASANSKAR The learning goals for Garbhanskar (Infertility) through Ayurveda and Panchkarma include: Understanding the holistic approach to infertility treatment. Learning about the six types of infertility and their treatment. Recognizing the importance of addressing mind-body imbalances. Familiarizing oneself with the four factors of conception and their significance. Gaining insights into the use of herbs, Panchakarma, and lifestyle changes for fertility enhancement. Developing a comprehensive understanding of the Ayurvedic approach to restoring reproductive health and achieving a healthy baby

325	**DRUG DEVELOPMENT & QUALITY ASSURANCE IN AYURVEDA** In the development of Ayurvedic medicines, traditional knowledge is harmonized with modern scientific, safety, and regulatory standards, encompassin materials and strict Good Manufacturing Practices (GMP). Quality assurance involves the verification of herbal and mineral formulations based on core (taste), *Guna* (properties), *Virya* (potency), *Vipaka* (metabolic effect), and *Prabhava* (specific action)—as well as the conduct of analytical tests. Central Council for Research in Ayurvedic Sciences Central Council for Research in Ayurvedic Sciences Key Aspects of Development and Quality Assurance Drug Development Process: This involves the selection and standardization of raw materials, the development of formulations (whether herbal or miner assessments, and clinical trials. Quality Control Parameters: Standardized Ayurvedic Pharmacopoeias are utilized to ensure the safety, consistency, and efficacy of the medicines. GMP Certification: As detailed in the DCMSME guidelines, this ensures that manufacturing sites, processes, and products adhere to established quality Safety and Standardization: Research focuses on evaluating the safety, efficacy, and standardization of Ayurvedic formulations, including both herbal a Clinical Evaluation: To substantiate the therapeutic efficacy of Ayurvedic medicines, this process involves Phase I through IV trials, conducted in accord Key Principles in Quality Assurance Basis of Drug Action: The mechanism of drug action is understood through the concepts of *Rasa* (taste), *Guna* (properties), *Virya* (potency), *Vipa *Prabhava* (specific action).
326	**NUTRITION & DIETETICS IN AYURVEDA** Nutrition and dietetics in Ayurveda is to master the art of personalized nutrition for maintaining health, preventing disease, and supporting healing based constitution (Prakriti) and the principles of Ahara (food/diet). This field aims to bridge traditional Ayurvedic dietary wisdom with modern nutritional science to promote a holistic lifestyle. Key Learning Objectives & Goals: Understand Individual Constitution (Prakriti & Vikriti): Learn to assess an individual's body type and current imbalances to tailor diet plans (Dosha-based Master the Principles of Ahara (Dietetics): Study the classification of food, Ahara Vidhi Visheshaayatana (factors determining food quality), and the role Integrate Traditional and Modern Nutrition: Bridge Ayurvedic nutritional theory with modern concepts like nutrients, macronutrients, and metabolism to d Implement Therapeutic Dietetics (Pathya): Learn to use food as medicine to manage lifestyle disorders, including obesity, diabetes, and hypertension. Understand Food Processing and Lifestyle: Learn the importance of cooking methods (Samskara), daily regimens (Dinacharya), and seasonal routines Identify Incompatible Foods (Viruddha Ahara): Learn to identify and avoid food combinations that create toxicity (Ama). Practical Application: Gain skills in identifying, preparing, and recommending nutritious, wholesome food, spices, and herbs. Career & Professional Goals: To become an Ayurvedic Nutritionist, Dietician, or Health Coach. To provide clinical consultation in Ayurvedic hospitals, wellness centers, and Panchakarma units. To offer expert advice on preventive health through diet and lifestyle changes.
327	**HEALTH SYSTEMS RESEARCH** Students will be **oriented to designing, implementing and analyzing** different operational studies and epidemiological and clinical studies. The stude observe the delivery research studies. They will be oriented to implementation of health systems research, secondary data analysis and an opportunity mathematical modelling for elimination of various diseases.

328	**QUALITATIVE STUDIES** This program will offer helpful research exposure to students who are looking for prospective careers in health sciences and public health research. The **explore into various aspects of research**, **gaining firsthand experience in conducting studies**, analyzing data, and drawing conclusions. Through involvement in research projects, they will develop critical skills, **enhance their understanding of qualitative studies**, and broaden their knowledge b This training will assure to empower aspiring professionals to make meaningful contributions to the advancement of healthcare and public health initiati
329	**HEALTH TECHNOLOGY ASSESSMENT** Health Technology Assessment (HTA) is a systematic, multidisciplinary evaluation of health technologies to inform healthcare decision-making, policy, Definition and Purpose HTA is a systematic and multidisciplinary process that evaluates the properties, effects, and impacts of health technologies, including drugs, medical de health interventions. Its primary goal is to determine the clinical effectiveness, cost-effectiveness, and broader social, ethical, and organizational implica evidence to guide policymakers, clinicians, and healthcare systems. HTA acts as a bridge between research and policy, ensuring that healthcare resou interventions provide meaningful benefits to patients. Methodology HTA involves clinical, economic, social, and ethical analyses. Clinical evaluation compares new interventions to existing standards of care to determine Economic evaluation assesses costs and benefits, including cost-effectiveness and budget impact, to inform resource allocation decisions. Social and e patient preferences, equity, and accessibility, ensuring that technologies are implemented fairly and responsibly. HTA can be applied at multiple levels hospital decisions to national policy frameworks.
330	**ENVIRONMENTAL HEALTH SCIENCES (ZOONOSIS AND ENVENOMATION: FROM PATHOGENESIS TO PUBLIC HEALTH MANAGEMENT)** The intersection of environmental health sciences and zoonoses is crucial for understanding the transmission of infectious diseases from animals to hu significant public health concern, with over 200 currently known zoonoses. These diseases can be transmitted through direct contact, food, water, fomit vectors. The WHO defines zoonoses as diseases or infections that are mutually transmissible from vertebrate animals to humans. The transmission of environmental and socioeconomic processes that reshape animal reservoirs and bring people and livestock into contact with wildlife. Climate change a greatest threats to human health, exposing people worldwide to increasing infectious disease threats. Effective management of zoonotic risks requires considers the interconnectedness of human, animal, and environmental health.
331	**Approach to Emergency medical services and Trauma care** The approach to emergency medical services and trauma care in India involves a comprehensive strategy to ensure timely and effective treatment for p Key components include: Chain of Survival: A well-coordinated sequence of events that includes pre-hospital care, transportation to the medical facility, and treatment at the facil Stabilization: Rapid assessment, management of vital signs, hemorrhage, mitigation of pain, and clearing the airway to establish a safe point for further Community Preparedness: Ensuring community preparedness and awareness to prevent and rehabilitate emergencies. Integrated Care: Strengthening emergency medical services through Ayushman Bha Managers and service providers to ensure continuous upgradatio Research and Implementation: Conducting research to identify barriers and facilitators of emergency care delivery for time-sensitive conditions and dev models. Technological Advancements: Harnessing technological solutions, data-driven insights, innovative approaches, and telemedicine to improve emergenc These strategies aim to enhance the efficiency and accessibility of emergency care services, ultimately saving lives and improving healthcare outcome