

Education for

Education
2030 

Sustainable Development Goals

Teaching & Learning Objective Handbook





SUSTAINABLE DEVELOPMENT GOALS

Education for

Sustainable Development Goals

Teaching & Learning Objective Handbook

By 2030, ensure that all learners acquire knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non- violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development.

[Source: United Nations, 2015](#)

PREFACE/ FOREWORD



We are at the brink of a global transformation. The international community, through the United Nations, has set in motion a historic plan – “17 Sustainable Development Goals” – that aims to build more prosperous, more equal, and more secure world by the year 2030. The SDGs and targets will stimulate action in the following critically important areas: **Poverty, Hunger, Education, Health and well-being, Gender equality, Water and sanitation, Energy, Economic growth and decent work, Infrastructure, Industry, and Innovation, Reducing inequalities, Sustainable cities, Responsible Consumption and production, Climate action, Ecosystems, Peace and justice, and Partnership.** The Government of India is strongly committed to the 2030 agenda, including the SDGs, as evidenced by larger alignment of national programme, schemes and policies aligned to the scope of these goals since their intrusion into policy.

JSS Medical College, a constituent college of JSS Academy of Higher Education and Research has demonstrated its highest commitment to contribute effectively towards achieving the targets of SDGs in all possible domains. The Institution is striving to achieve academic excellence in medical and health professions education through the committed efforts of good quality teachers, state of the art educational environment and research initiatives.

Understanding the fact that future of the world lies on the achievement of sustainable development goals, we are making a conscious effort to enable the young health care professionals with sufficient, knowledge, attitude and skills about the SDGs as a part of their regular curriculum. The learners are encouraged to acquire the knowledge & skills on aspects of sustainable development goals through horizontally and vertically integrated approach throughout the undergraduate and post graduate training programs in health sciences education. Such a type of education is expected to enhance the sense of responsibility and global mindset to achieve the sustainable development goals among the young minds.

I, hope that this handbook will act as a guidance document for all the teachers and students to understand and implement the SDG centered teaching learning strategies to bring out locally competent, globally relevant health care professionals in days to come.

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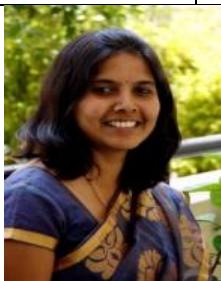
			
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INTRODUCTION

The Sustainable Development Goals – an ambitious and universal agenda to transform our world, needs to be understood and implemented across the globe by all stakeholders.

On 25 September 2015, the UN General Assembly adopted the 2030 Agenda for Sustainable Development (UN, 2015). This new global framework to redirect humanity towards a sustainable path was developed following the United Nations Conference on Sustainable Development (Rio+20) in Rio de Janeiro, Brazil in June 2012, in a three-year process involving UN Member States, national surveys engaging millions of people and thousands of actors from all over the world.

At the core of the 2030 Agenda are 17 Sustainable Development Goals (SDGs). The universal, transformational and inclusive SDGs describe major development challenges for humanity. The aim of the 17 SDGs is to secure a sustainable, peaceful, prosperous, and equitable life on earth for everyone now and in the future. The goals cover global challenges that are crucial for the survival of humanity. They set environmental limits and set critical thresholds for the use of natural resources. The goals recognize that ending poverty must go together with strategies that build economic development. They address a range of social needs including education, health, social protection, and job opportunities while tackling climate change and environmental protection. The SDGs address key systemic barriers to sustainable development such as inequality, unsustainable consumption patterns, weak institutional capacity, and environmental degradation.

For the goals to be reached, everyone needs to do their part: governments, the private sector, civil society and every human being across the world. Governments are expected to take ownership and establish national frameworks, policies, and measures for the implementation of the 2030 Agenda.

A key feature of the 2030 Agenda for Sustainable Development is its universality and indivisibility. It addresses all countries – from the Global South and the Global North – as target countries. All countries subscribing to the 2030 Agenda are to align their own development efforts with the aim of promoting prosperity while protecting the planet to achieve sustainable development. Thus, with respect to the SDGs, all countries can be considered as developing and all countries need to take urgent action.

India has been driving an array of SDG initiatives in the past five years. At the national and sub-national levels, governments have adopted the SDGs as a guiding framework to steer development action. Many flagship programs have been launched to align the nation's developmental strategies with the scope of SDGs. We can achieve the targets of SDGs only when their principles, utilities, indicators, and strategies are disseminated to the younger generations. Students in medicine and allied sciences sector are expected to play a major role in implementation of strategies to achieve the SDGs. Hence there is a strong need to train them on these aspects through a structured curricular approach. Aligning the learning objectives of undergraduate and post graduate courses with the concepts of SDGs followed by innovative teaching learning methods to impart the knowledge and skills are the most desirable approaches.

This handbook on teaching and learning objectives of SDG, will act as a guide for the teachers to plan their teaching-learning strategies, keeping the concepts of SDGs in their mind. This also facilitates the learners to understand the national and global expectations from them in future to attain the targets of Sustainable development goals.

The 17 Sustainable Development Goals (SDGs)

No Poverty – End poverty in all its forms everywhere

Zero Hunger – End hunger, achieve food security and improved nutrition and promote sustainable agriculture

Good Health and Well-Being – Ensure healthy lives and promote well-being for all at all ages

Quality Education – Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Gender Equality – Achieve gender equality and empower all women and girls

Clean Water and Sanitation – Ensure availability and sustainable management of water and sanitation for all

Affordable and Clean Energy – Ensure access to affordable, reliable, sustainable, and clean energy for all

Decent Work and Economic Growth – Promote sustained, inclusive, and sustainable economic growth, full and productive employment and decent work for all

Industry, Innovation and Infrastructure – Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Reduced Inequalities – Reduce inequality within and among countries

Sustainable Cities and Communities – Make cities and human settlements inclusive, safe, resilient and sustainable

Responsible Consumption and Production – Ensure sustainable consumption and production patterns

Climate Action – Take urgent action to combat climate change and its impacts

Life below Water – Conserve and sustainably use the oceans, seas and marine resources for sustainable development

Life on Land – Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

Peace, Justice and Strong Institutions – Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

Partnerships for the Goals – Strengthen the means of implementation and revitalize the global partnership for sustainable development

Source: <http://www.un.org/sustainabledevelopment/sustainable-development-goals>



SDG 1 – NO POVERTY



End poverty in all its forms everywhere

Teaching & Learning objectives for SDG 1 “No Poverty”

Subject/ topic/ course in regular curriculum relating to SDG -1	Pharmacology, Community Medicine, Forensic Medicine, General Medicine, Obstetrics and Gynaecology, Paediatrics, Psychiatry
Cognitive Teaching & learning objectives	<p>At the end of 2nd Professional year the learner should be able to,</p> <ol style="list-style-type: none">1. Describe poverty and its impact on health and disease2. Describe the indicators of poverty and socioeconomic status assessment scales3. Identify, discuss and defend medico-legal, sociocultural, economic and ethical issues as it pertains to rights, equity and justice in access to health care4. Describe the concept of pharmaco-economics <p>At the end of 3rd Professional year part -1, the learner should be able to,</p> <ol style="list-style-type: none">1. Describe social security and social assurance measures taken by government to alleviate poverty in India2. Understand the economic impact of various communicable and non-communicable diseases in various age groups3. Describe the role of health insurance in preventing catastrophic health expenditure and preventing poverty4. Describe various health programs and the facilities available under them for people below poverty line <p>At the end of final year the learner should be able to,</p> <ol style="list-style-type: none">1. Discuss impact of various ailments on economic status of the family2. Describe role of substance use, dependence and abuse in economic downturn of family3. Describe the mode of proving health care advise based on the socioeconomic status of a patient with specific illness.
Socio-emotional Teaching & learning objectives	<p>At the end of final year the student should be able to</p> <ol style="list-style-type: none">1. Counsel the vulnerable individuals, families and communities on social security and social assistance measures

	<ol style="list-style-type: none"> 2. Reflect on how poverty contributes to onset, progression and consequences of various illnesses 3. Support families in poverty alleviation through various government health schemes and programs related to disease 4. Can feel empathy, responsibility and solidarity for people with poverty and its consequences
Behavioural Teaching & learning objectives	<p>At the end of final year the learner should be able to</p> <ol style="list-style-type: none"> 1. Demonstrate various methods to assess the socioeconomic status of the family and identification of families below poverty line. 2. Assess the economic impact of various illnesses on families through patient and family interaction 3. Conduct awareness sessions on various social security, assistance measures and government schemes for people below poverty line 4. Give health related advise to the individuals and families with various illnesses in a way that is suitable for their economic status 5. Provide health and dietary advise for pregnant, lactating women and undernourished children keeping in mind their socioeconomic status.

Topics for SDG-1 No poverty

1. Concept, causative factors, and impact of poverty on health and disease
2. Classification of socioeconomic status of the families through various scales and identification of families with poverty
3. Economic impact of various health problems (Communicable, non-communicable diseases, mother and child health problems and malnutrition)
4. Social security and social assistance measures in alleviating poverty and its effects.
5. Concept and application of pharmaco-economics in health care
6. Various national health programs and schemes for people below poverty line
7. Substance use, abuse and dependence and their economic impact
8. Health insurance and its importance in reducing catastrophic health expenditure and poverty

Learning approaches and Methods for SDG-1 No Poverty

1. Lectures, videos, small group discussions on the concept, causative factors and consequences of poverty
2. Calculation of indices of socioeconomic development like human development index, human poverty index etc
3. Assessment of socioeconomic status of families using various scales like (modified Kuppuswamy scale, modified BG Prasad scale, standard of living index, poverty line scales etc at hospital and community settings)
4. Case studies on role of poverty in health and disease
5. Case based discussions on advising individuals, families and communities on their diet, environmental sanitation and prevention tailored to their economic status.
6. Role plays on impact of poverty on health and diseases
7. Lectures, seminars and symposium on various social security, social assistance schemes and provisions under various national health programs for poor and marginalized people
8. Videos, role plays on the impact of substance use, abuse and dependence on poverty
9. Special lectures/seminar/Symposium on health insurance and its role in preventing poverty
10. Introductory lecture sessions on health economics by experts in the field

SDG 2 - Zero Hunger



End hunger, achieve food security and improved nutrition and promote sustainable agriculture

Teaching & Learning objectives for SDG 2 “Zero Hunger”

Subject/ topic/ course in regular curriculum relating to SDG -2	Physiology, Biochemistry, Community Medicine, General Medicine, Geriatrics Paediatrics and OBG
Cognitive Teaching & learning objectives	<p>At the end of 1st Professional year the learner should be able to,</p> <ol style="list-style-type: none"> 1. Classify food and describe the nutrient values of each type of foods 2. Describe the causes and consequences of malnutrition and obesity at various age groups <p>At the end of 3rd Professional year part -1, the learner should be able to,</p> <ol style="list-style-type: none"> 1. Understand the burden of hunger, hidden hunger and malnutrition at state, national and international level 2. Describe the methods of nutritional assessment at community level 3. Describe the causes, clinical features, prevention, and control of nutritional health problems 4. Discuss various community nutrition programs, policies and laws and their impact on nutritional status of community <p>At the end of 3rd Professional year part -2 the learner should be able to,</p> <ol style="list-style-type: none"> 1. Describe importance and methods of nutritional assessment of vulnerable population (Under five children, adolescents, pregnant/lactating women, elderly etc) 2. Describe the methods of dietary counselling at various scenarios
Socio-emotional Teaching & learning objectives	<p>At the end of final year the learner should be able to</p> <ol style="list-style-type: none"> 1. Counsel the vulnerable individuals, families and communities on balanced diet and nutritional health problems 2. Counsel the individuals requiring special nutritional interventions like Hypertensives and diabetics on their dietary and nutrient practices

	<p>3. Can reflect on nutritional status, causes and consequences of under-nutrition / obesity based on patient and community interaction.</p> <p>4. Can feel empathy, responsibility and solidarity for and with people suffering from hunger and malnutrition</p>
Behavioural Teaching & learning objectives	<p>At the end of final year the learned should be able to</p> <ol style="list-style-type: none"> 1. Demonstrate various methods of nutritional assessment at individual, family and community levels 2. Assess the calorie and protein intakes of individual, family and community and provide suitable advise based on the outcomes of assessment 3. Conduct health education sessions at community setting on causes, consequences and prevention of nutritional health problems at different age groups

Topics for SDG 2 “Zero Hunger”

1. Role of micro and macro-nutrients in maintaining health
2. Concept of hunger, hidden hunger- their burden, risk factors at state, national and international levels
3. Causes, identification, and consequences of various nutritional health issues like (PEM, SAM, Micro-nutrient deficiencies, overweight and obesity)
4. Sociocultural factors influencing hunger and malnutrition.
5. Nutritional assessment methods at individuals, families, and community settings
6. Nutritional assessment of vulnerable people visiting the health care establishments and nutritional counselling
7. Community Nutrition programs, policies, legislations, and strategies
8. Methods of nutrition health education and counselling
9. Impact of hunger and malnutrition beyond health

Learning approaches and methods for SDG 2 “Zero Hunger”

1. Demonstration of foods with their special nutritional values and their requirement standards among human beings
2. Observation of nutrition weeks at peripheral health centres by involving stakeholders at community setting.
Demonstration of foods with nutrient values, explaining the importance of balanced diet and special nutritional requirements at the periods of vulnerability
3. Case studies, poster competition, essay writing on the causes, consequences and impact of hunger and malnutrition
4. Case based discussions on PEM, SAM, Micro-nutrient deficiencies
5. Nutritional assessment activities as a part of family health advisory surveys in Community Medicine
6. Assessment of nutritional status of vulnerable individuals and nutrition counselling at health care establishment set up

SDG 3 - Good Health and Well-being



Ensure healthy lives and promote well-being for all at all ages

Teaching & Learning objectives for SDG 3 “Good Health & Well being”

Subject/ topic/ course in regular curriculum relating to SDG -3	All the pre, para, clinical and super speciality Departments in JSS Medical College
Cognitive Teaching & learning objectives	<p>At the end of 1st Professional year the learner should be able to,</p> <ol style="list-style-type: none"> 1. Define health and well-being, describe the concept of dimensions, determinants, and positive health 2. Understands the anatomical, physiological, and biochemical basis of health and well-being. <p>At the end of 2nd Professional year the learner should be able to,</p> <ol style="list-style-type: none"> 1. Understand the concept of disease and illness, natural history of disease, dynamics of disease transmission, concepts of prevention and control. 2. Discuss the etiology and pathogenesis and diagnosis of various diseases 3. Discuss the microbiological basis of causation of various communicable diseases and their diagnosis 4. Describe the role of drugs/medicines in treatment of various diseases including their pharmaco-kinetics and pharmacodynamics. <p>At the end of 3rd Professional year part -1, the learner should be able to,</p> <ol style="list-style-type: none"> 1. Describe and discuss the epidemiological and control measures including the use of essential laboratory tests at the primary care level for communicable diseases 2. Describe and discuss the epidemiological and control measures including the use of essential laboratory tests at the primary care level for Non Communicable diseases (diabetes, Hypertension, Stroke, obesity and cancer etc.) 3. Describe the current status and health problems of Reproductive, maternal, newborn and Child Health and

	<p>various interventions and strategies to address these issues.</p> <ol style="list-style-type: none"> 4. Discuss objectives, scope, strategies and provisions under various national health programs and schemes against communicable, non communicable diseases in India. 5. Understand the concept, evolution of primary health care, health care delivery system in India, international health regulations and role of international health organizations and NGOs in health care. 6. Understand medico legal aspects in various circumstances associated with morbidities and mortalities <p>At the end of 3rd Professional year part -2 the learner should be able to,</p> <ol style="list-style-type: none"> 1. Understand the risk factors, clinical assessment, laboratory investigations and management of various communicable and non-communicable diseases in all the age groups in a clinical setting 2. Understand the guidelines and methods of providing mother and childcare services including family planning at health care facility setting 3. Describe the basic surgical and orthopedic conditions which require specialized care to ensure well-being in patients 4. Understand the detection and management of common mental and dermatological conditions of public health concern.
Socio-emotional Teaching & learningobjectives	<p>At the end of final year the learner should be able to</p> <ol style="list-style-type: none"> 1. Communicate with individuals, families and communities on prevention of diseases, promotion of healthy lifestyles and enhance health seeking behaviour at community setting 2. Effectively communicate with patients attending the health centres with various illnesses 3. Counsel the patients on treatment options, medication adherence, behavioral modifications and care during special circumstances 4. Provide clinical care with compassion by applying the principles of ethics, empathy, humanism, altruism and professionalism 5. Counsel the individuals and families on care during pregnancy, child care, infant feeding practices, family welfare services , care of elderly and other vulnerable individuals.
Behavioural Teaching & learningobjectives	<p>At the end of final year the learner should be able to</p>

	<ol style="list-style-type: none"> 1. Organize health education sessions at community settings on prevention and control of various predominant health problems in the community. 2. Demonstrate the skills of history taking, clinical examination, diagnosis and management of various communicable and non-communicable diseases at primary, secondary and tertiary care settings. 3. Demonstrate the skills in care of women during pregnancy, child birth and post-natal period including breast feeding and family planning 4. Exhibit the skills in managing health issues in special circumstances like disaster, outbreak, epidemic, pandemic, road traffic accidents etc.
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Topics for SDG 3 “Good Health and Well-being”

1. Concept, dimensions, determinants of health and well being
2. Structure and functioning of human body, maintenance of milieu interior including biochemical basis of functions in human body.
3. Concepts of pathological and microbiological basis of disease causation
4. Concept of disease, natural history of diseases, dynamics of disease transmission, risk factors levels of prevention and modes of intervention for various communicable and non-communicable diseases
5. Concepts in pharmacological management of various diseases and their role in preventive domain.
6. Epidemiological and control measures including the use of essential laboratory tests at the for communicable diseases and non-communicable diseases including relevant national health programs.
7. Principles and practice of health education
8. Health care during special circumstances like disaster, epidemic, pandemic etc.
9. Concept, evolution of primary health care, health care delivery system in India, international health regulations and role of international health organizations and NGOs in health care.
10. History taking, clinical examination, laboratory diagnosis, treatment and prevention of various health problems at primary, secondary and tertiary care settings
11. Medico legal aspects associated with morbidities and mortality
12. Mother, new-born, childhood, adolescent health problems and their management at different levels of health care
13. Surgical and orthopedic conditions which require special care and management at health care setting
14. Health problems in elderly and their management
15. Health problems due to urbanization, globalization, climate change and ways to prevent them
16. Mental health
17. Problems of skin and appendages
18. Accidents and injuries
19. Attitudinal Ethics and Communication skills Modules

Learning approaches and methods for SDG 3 “Good Health and Well-Being”

1. Videos, group discussion, role plays on various health problems and their prevention
2. Cadaveric dissection, group discussions, simulation exercises to understand human anatomy and physiology
3. Problem based learning, Team Based Learning, Community based learning sessions to understand the causation, diagnosis and prevention of various health problems in different age groups
4. Laboratory based exercises in identification of biochemical, pathological, microbiological basis of diseases.
5. Model making, animal simulation, drug stations and prescription analysis in understanding pharmacological aspects of treatment and prevention
6. Family health advisory survey to understand sociocultural, environmental, nutritional and epidemiological factors associated with health, well-being and diseases in community setting
7. Moot court, case vignettes, crime scene investigations and autopsy to understand medico legal aspects.
8. Case-based learning sessions on history taking, clinical examination, diagnosis, treatment and prevention of various communicable, non-communicable diseases including mother and childcare
9. Visit to primary health centres, community health centres, district hospitals, NGOs, Anganwadis to understand health care delivery system in India
10. Observation of days of public health importance like World Health Day, World Environment, TB, No Tobacco, Hypertension, Diabetes, Cancer, AIDS, Leprosy Days etc to create awareness about their importance
11. Reflective writing, portfolios, storytelling, case scenario based discussion, role plays, clinical encounters to impart attitudinal and communication skills including medical humanities
12. Skills and simulation lab based teaching of various clinical skills related to medicine, surgery, Obstetrics and Gynecology, Paediatrics, Orthopedics, emergency medicine etc.

SDG 4 - Quality Education



Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Teaching & Learning objectives for SDG 4 “Quality Education”

Subject/ topic/ course in regular curriculum relating to SDG -4 Cognitive Teaching & learning objectives	Anatomy, Physiology, Biochemistry, Community Medicine, General Medicine, Geriatrics Paediatrics and OBG At the end of 1st Professional year, the learner should be able to, <ul style="list-style-type: none"> 1. Understand the importance of self-directed learning 2. The learner understands the importance of foundation course program 3. The learner understands the importance of family adoption program 4. Learning communication skills and inspire confidence amongst families 5. Understand the dynamics of rural set-up of the region 6. Screening programs and education about ongoing government sponsored health related programs 7. Learn to analyse the data collected from their families 8. Identify diseases/ ill-health/ malnutrition of allotted families and try to improve the standards At the end of 2nd professional year, the learner should be able to, <ul style="list-style-type: none"> 1. Inspire active participation of community through families allotted 2. Continue active involvement to become the first doctor/ reference point of the family through continued active interaction 3. Start compiling the outcome targets achieved At the end of final year the learner should be able to, <ul style="list-style-type: none"> 1. Analysis of their involvement and impact on existing socio-politico-economic dynamics in addition to improvement in health conditions 2. The learner understands the importance of early clinical exposure 3. Recognize the relevance of basic sciences in diagnosis, patient care and Treatment 4. Provide a context that will enhance basic science learning
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	<p>5. Relate to experience of patients as a motivation to learn.</p> <p>6. Recognize attitude, ethics and professionalism as integral to the doctor patient relationship</p> <p>7. The learner understands that education can help create a more sustainable, equitable and peaceful world.</p>
Socio-emotional Teaching & learning objectives	<p>At the end of final year, the learner should be able to,</p> <ol style="list-style-type: none"> 1. The learner understands the important role of education and lifelong learning opportunities for all (formal, non-formal and informal learning) as main drivers of sustainable development, for improving people's lives and in achieving the SDGs. 2. The learner is able through participatory methods to motivate and empower others to demand and use educational opportunities. 3. The learner can recognize the intrinsic value of education and to analyse and identify their own learning needs in their personal development. 4. The learner can recognize the importance of their own skills for improving their life, for employment and entrepreneurship. 5. Field visit to community health centres
Behavioural Teaching & learning objectives	<p>At the end of final year, the learner should be able to,</p> <ol style="list-style-type: none"> 1. To describe Health Policy planning, Medical Education technology, Information Technology and integration of alternative Health system including AYUSH. 2. Develop appropriate IEC Material, assessment of community communication needs, training skills, counseling skills, conduct Health Education Programs in urban and rural settings 3. Devise appropriate health education messages for public health awareness using various health communications strategies 4. The learner understands the important role of education and lifelong learning opportunities for all (formal, non-formal and informal learning) as main drivers of sustainable development, for improving people's lives and in achieving the SDGs. 5. The learner understands education as a public good, a global common good, a fundamental human right and a basis for guaranteeing the realization of other rights. 6. The learner knows about inequality in access to and attainment of education, particularly between girls and boys and in rural areas, and about reasons for a lack of equitable access to quality education and lifelong learning opportunities. 7. The learner understands the important role of culture in achieving sustainability. 8. The learner understands education as a public good, a global common good, a fundamental human right and a

	<p>basis for guaranteeing the realization of other rights.</p> <p>9. The learner knows about inequality in access to and attainment of education, particularly between girls and boys and in rural areas, and about reasons for a lack of equitable access to quality education and lifelong learning opportunities.</p> <p>10. The learner understands the important role of culture in achieving sustainability.</p>
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Topics for SDG 4 “Quality Education”

1. Foundation course
2. Self-Directed Learning
3. Reflective writing and reflective practices
4. Planting trees and family adoption program
5. Formal, non-formal and informal learning, including the use of ICT
6. Poverty, conflicts, disasters, gender inequality, lack of public financing of education, growing privatization
7. Basic skills and competencies needed in the 21st century education
8. Knowledge, values, skills and behaviors needed to promote sustainable development
9. Youth empowerment and empowerment of marginalized groups
10. Inculcating the attributes of lifelong learning

Learning approaches and methods for SDG 4 “Quality Education”

1. Field visits to orient the medical education with community needs and demands
2. Seminars and guest lectures on various advancements in health science to update the student's knowledge in par with scientific advances
3. Project work to enhance the knowledge and skills
4. Health education and awareness programs
5. School health appraisal programme
6. Organizing and attending international and national conferences in advancements in the field of medicine
7. Quiz competitions and other literary events to enhance the learning capabilities
8. Workshops on skill development in various aspects of medical education
9. Organize student research fair, academic fests, symposiums in various specialties to enhance the research and academic credentials of students
10. Celebrate international literacy day & education day

SDG - 5 Gender Equality



Achieve gender equality and empower all women and girls

Teaching & Learning objectives for SDG 5 “Gender Equality”

Subject/ topic/ course in regular curriculum relating to SDG 5	Pharmacology, Community Medicine, Psychiatry, Forensic Medicine, Obstetrics and gynecology
Cognitive Teaching & learning objectives	<p>At the end of 2nd professional year, the learner should be able to</p> <ol style="list-style-type: none">1. Enumerate and describe the causes of declining sex ratio and its social and health implications2. Describe and discuss on gender issues at various stages of life3. Discuss in detail about women empowerment and benefits for the society4. Describe local customs and practices during pregnancy, childbirth and lactation <p>At the end of 3rd professional year, part 1 the learner should be able to</p> <ol style="list-style-type: none">1. Enumerate and describe the magnitude and etiology of gender identity disorders2. Describe the indications for laboratory tests in gender identity disorders3. Describe different types of sexual offenses, various sections of IPC regarding rape including definition of rape (Section 375 IPC), Punishment for Rape (Section 376 IPC) and recent amendments notified till date4. Enumerate and discuss the objectives of antenatal care, assessment of period of gestation, screening for high-risk factor5. List and explain the components, plans, outcomes of Reproductive child health (RCH) program6. Discuss Pre-conception and Prenatal-Diagnostic Techniques (PCPNDT)- Prohibition of Sex Selection Act 2003 and Domestic Violence Act 20057. Enumerate the goals, strategies and plan of action of NHM and other important national programs pertaining to maternal and child health including RMNCH A+, RBSK, RSK, JSSK mission Indra Dhanush and ICDS

Socio-emotional Teaching & learning objectives	At the end of final year the learner should be able to <ol style="list-style-type: none"> 1. Counsel the community on gender issues and debate the benefits of full empowerment of gender 2. Can reflect on their own gender identity and gender roles. 3. Can feel empathy for community with gender inequalities and gender discrimination 4. Identify and defend medico-legal, socioeconomic and ethical issues as it pertains to abortion / medical termination of pregnancy and reproductive rights
Behavioral Teaching & learning objectives	At the end of final year learner should be able to <ol style="list-style-type: none"> 1. Document clinical features in patients with magnitude and etiology of gender identity disorder 2. Interpret laboratory and other tests used in gender identity Disorder 3. Provide family education in a patient with gender identity disorders in a simulated environment 4. Observe the implementation of reproductive child health program by Visiting the Rural Health Centre 5. Provide education and create awareness on prevention, prohibition, and redressal of sexual harassment 6. Conduct health education on antenatal, postnatal, well-baby and family welfare clinics

Topics for SDG 5 “Gender Equality”

1. Gender as a social and cultural construct
2. Gender equality and participation in decision-making
3. Women empowerment and its advantages
4. Declining sex ratio, gender preferences and gender discrimination in health, education, social participation and decision making
5. Exploitation and trafficking of women and girls
6. Gender identity disorders, their diagnosis and management
7. Prevention, prohibition and redressal of sexual/gender harassment at all places
8. Gender specific national health programs and policies (RNMCH+A, RBSK, RSSK, JSSK etc.)
9. Pre-conception and Prenatal-Diagnostic Techniques (PCPNDT)- Prohibition of Sex Selection Act 2003 and Domestic Violence Act 2005
10. Sexual offenses, various sections of IPC regarding rape including definition of rape (Section 375 IPC), Punishment for Rape (Section 376 IPC) and recent amendments notified till date

Learning approaches and methods for SDG 5 “Gender Equality”

1. Guest lectures on declining sex ratio and its impact on society
2. Interdisciplinary teaching sessions on legal aspects related to gender equality
3. Case based discussion on gender identity disorders
4. Observation of International women day
5. Visit to health centers at various levels to understand the implementation of gender specific national health programs and policies
6. Role plays on sexual and gender harassment and ways to overcome them
7. Celebrate the International Day for the Elimination of Violence Against Women
8. Explore how natural hazards and disasters affect women, girls, men and boys differently
9. Project works on domestic violence, gender discrimination and gender equality
10. Student driven debates, panel discussion and symposium on various aspects of gender equality.

SDG 6 - Clean Water and Sanitation



Ensure availability and sustainable management of water and sanitation for all

Teaching & Learning objectives for SDG 6 “Clean Water and Sanitation”

Subject/ topic/ course in regular curriculum relating to SDG 6	Microbiology, Pathology, Community Medicine, General Medicine, Dermatology and Paediatrics
Cognitive Teaching & learning objectives	<p>At the end of 2nd Professional year, the learner should be able to,</p> <ol style="list-style-type: none"> 1. Describe the methods used and significance of assessing the microbial contamination of food, water and air 2. Enumerate and describe water borne diseases with respect to their causative agents and pathogenesis <p>At the end of 3rd Professional year part -1, the learner should be able to,</p> <ol style="list-style-type: none"> 1. Describe and demonstrate in a simulated environment the assessment of barriers to good health and health seeking behavior 2. Describe the health hazards of air, water, noise, radiation and pollution 3. Describe concepts of safe and wholesome water, sanitary sources of water, water purification processes, water quality standards, concepts of water conservation and rainwater harvesting 4. Describe the epidemiology and preventive aspects of water borne diseases /jaundice/hepatitis/ diarrheal diseases 5. Describe the procedures and importance of milk hygiene, meat hygiene 6. Describe the concept of solid waste, human excreta and sewage disposal 7. Describe the role of vectors in the causation of diseases. Also discuss National Vector Borne Disease Control Program 8. Identify and describe the identifying features and life cycles of vectors of Public Health importance and their control measures 9. Describe the mode of action, application cycle of commonly used insecticides and rodenticides 10. Describe the types, hazards and management of biomedical waste <p>At the end of final year the learner should be able to</p> <ol style="list-style-type: none"> 1. Describe the clinical features, diagnosis and treatment of water borne diseases 2. Describe the diseases related to improper personal hygiene, water pollution, improper environmental sanitation 3. Describe the skin diseases related to improper personal hygiene and sanitation 4. Be familiar with the basic factors which are essential for the implementation of the National Health Programs including practical aspects of Sanitation and water supply

Socio-emotional Teaching & learning objectives	<p>At the end of final year the learner should be able to</p> <ol style="list-style-type: none"> 1. Take part in community activities of improving water and sanitation management 2. Able to explain about water pollution, water access and water saving measures 3. Counsel the individuals and families on using clean water and environmental sanitation 4. Communicate with families on importance of waste disposal 5. Can feel empathy, responsibility and solidarity for and with people for sanitation and hygiene.
Behavioural Teaching & learning objectives	<p>At the end of final year the learner should be able to</p> <ol style="list-style-type: none"> 1. Undertake health awareness activities on water and sanitation at community setting 2. Impart appropriate advise on prevention of water and sanitation related advices to the patients at hospital settings 3. Manage biomedical waste generated at patient care at the clinical setting in an appropriate manner 4. The learner can plan, implement, evaluate and replicate activities that contribute to increasing water quality and safety. 5. The learner can evaluate, participate in and influence decision-making on management strategies of local, national and international enterprises related to water pollution.

Topics for SDG 6 “Clean Water and Sanitation”

1. Basic concepts of personal hygiene and environmental sanitation
2. Role of microorganisms in water contamination
3. Role of individual person in the assessment of good health and its barriers
4. Hazards of air, water, soil pollution and radiations.
5. Concepts of safe water, sources of sanitary water with water purification process
6. Standards of water quality with methods of water conservation and rainwater harvesting
7. Epidemiology, clinical features, diagnosis and management of water borne and water related diseases diseases
8. Concept of waste management including solid waste, human excreta and sewage disposal
9. National Vector Borne Disease Control Program
10. Life cycles of vectors of Public Health importance and their control measures
11. Insecticides and Pesticides
12. Biomedical waste management
13. Solid and liquid waster management
14. Milk and meat hygiene
15. Sanitation measures of schools, swimming pools, slaughter houses, market places and hostels.

Learning approaches and methods for SDG 6 “Clean Waterand Sanitation”

1. Case studies, poster competition, essay writing on the causes, consequences and impact of clean water and sanitation
2. Observation of community associated work on clean water and sanitation.
3. Family health advisory survey
4. Case based discussions on water borne diseases.
5. Assessment of hygiene of individual, family and community, planning the health sessions of the same.
6. Academic visit to water treatment plant, sewage treatment plan, slaughter houses, milk diaries swimming pool market places to understand their sanitation conditions
7. Visit to biomedical waste treatment plants
8. Facility tour in the hospital to understand the biomedical waste management at various levels
9. Observation of world water day and world environment days

SDG 7 - Affordable and Clean Energy



Ensure access to affordable, reliable, sustainable and clean energy for all

Teaching & Learning objectives for SDG 7 “Affordable and Clean Energy”

Subject/ topic/ course in regular curriculum relating to SDG -2	Anatomy, Physiology, Biochemistry, Pathology, Microbiology, Paediatrics, General medicine, ENT, Radiotherapy, Respiratory medicine, OBG, Dermatology
Cognitive Teaching & learning objectives	<p>At the end of final year, the learner should be able to</p> <ol style="list-style-type: none"> 1. Describe the health hazards of air pollution 2. Describe the health hazards of noise pollution 3. Describe the health hazards of radiation hazards 4. Describe the aetiology and basis of water borne diseases /jaundice/hepatitis/ diarrheal diseases 5. Describe toxic pollution of environment, its medico-legal aspects & toxic hazards of occupation and industry 7. Describe the role of the environment in the cause and exacerbation of obstructive airway disease 8. Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of COPD in the elderly. 9. Describe and discuss the aetio-pathogenesis, clinical presentation, complications, assessment and management of nutritional disorders in the elderly. 10. Describe and discuss the response and the influence of host, immune status, risk factors and comorbidities on zoonotic diseases (e.g. Leptospirosis) 11. Discuss and describe the common causes, pathophysiology and manifestations of waterborne disease 12. Define and describe the pathogenesis and pathology of malaria with emphasis of role of environment on the life cycle of malarial parasite. 13. Define and describe the pathogenesis and pathology of Common bacterial, viral, protozoal and helminthic diseases

	<p>14. Define and describe the etiology, types, exposure, Environmental influence, pathogenesis, stages, morphology, Microscopic appearance and complications of Occupational lung disease</p> <p>15. Describe concepts of safe and wholesome water, sanitary sources of water, water purification processes, water quality standards, concepts of water conservation and rainwater harvesting</p> <p>16. Enumerate, classify and describe the etiology, pathogenesis pathology and iodine dependency of thyroid swellings</p> <p>17. Describe the role of environmental teratogens affecting pregnancy and its outcome (anomalies)</p>
Socio-emotional Teaching & learning objectives	<p>At the end of final year the learner should be able to</p> <ol style="list-style-type: none"> 1. Counsel the vulnerable individuals, families and communities on health problems related to non-availability of clean energy 2. Counsel the individuals regarding the advantages of renewable vs non-renewable source of energy. 3. Can reflect on hazards of pollution of different natural resources like air, water etc. 4. Can feel empathy, responsibility and solidarity for and with people suffering from pollution related diseases. 5. Advocate the importance of having clean sources of energy
Behavioral Teaching & learning objectives	<p>At the end of final year the learner should be able to</p> <ol style="list-style-type: none"> 1. Demonstrate the usage of various renewable energy sources at individual, family and community levels 2. Assess the availability of clean energy (natural resources) of individual, family and community and provide suitable advice based on the outcomes of assessment 3. Conduct health education sessions at community setting on causes, consequences and prevention of health hazards related to non-availability of clean energy (pollution). 4. Elicit document and present a medical history that will differentiate the aetiologies of various diseases caused due to air, water and noise pollution. 5. Conduct health education sessions for people at risk about the radiation hazards and its sequences (malignancies) 6. Recognize the clinical signs of diseases that are exclusively caused due to contaminated sources of energy

	<p>7. Conduct health education sessions on the importance of sanitation and water supply</p> <p>8. Assess patients with Vitamin D deficiency, Diagnose, Classify and plan management</p>
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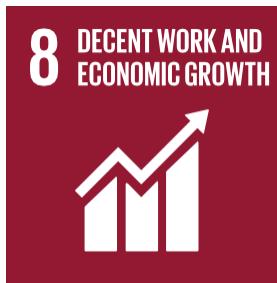
Topics for SDG 7 “Affordable and Clean Energy”

1. Role of clean energy (natural resources) in maintaining health
2. Concept of portable water, green house effect and their importance at state, national and international levels
3. Causes, identification, and consequences of various waterborne diseases due to contamination of water
4. Causes, identification, and consequences of various diseases due to contamination of air
5. Causes, identification, and consequences of various diseases due to noise pollution
6. Causes, identification, and consequences of various diseases due to occupational hazards
7. Socio-cultural factors influencing the availability of clean energy sources
8. Political and financial factors affecting the affordability of clean energy
9. Assessment methods for clean energy sources at individuals, families, and community settings
10. Magnitude of pollution and its assessment with respect to vulnerable people visiting the health care establishments for diseases relating to environmental pollution
11. Community Nutrition programs, policies, legislations, and strategies
12. Methods of environmental education and counselling
13. Other effects environmental pollution on the ecosystem

Learning approaches and methods for SDG 7 “Affordableand Clean Energy”

1. Visiting sewage treatment and water recycling centres
2. Demonstration use of renewable sources instead on non-renewable at family and community level
3. Observation of *healthy environment week* at peripheral health centres by involving stakeholders at community setting.
4. Demonstration of use of biodegradable materials instead of substances which hazardous to environment.
5. Case studies, poster competition, essay writing on the causes, consequences and impact of environmental pollution
6. Case based discussions on water borne diseases, radiation hazards
7. Case based discussion on diseases resulting from air pollution and noise pollution
8. Clean energy assessment activities as a part of family health advisory surveys in Community Medicine

SDG 8 - Decent Work and Economic Growth



Promote sustained inclusive and sustainable economic growth, full and productive employment, and decent work for all

Teaching & Learning objectives for SDG 8 “Decent Work and Economic Growth”

Subject/ topic/ course in regular curriculum relating to SDG 8	Community Medicine, Forensic Medicine, Surgery, Physical and Rehabilitation Medicine
Cognitive Teaching & learning objectives	<p>At the end of first professional year the learner should be able to,</p> <ul style="list-style-type: none"> 1. Foundation course during beginning of MBBS shall align them for carrier, professionalism, time management, study skills 2. Understand the socio-economic determinants of health and well-being <p>At the end of final year the learner should be able to,</p> <ul style="list-style-type: none"> 1. Describe the role, benefits and functioning of the employees state insurance scheme 2. Describe toxic pollution of environment, its medico-legal aspects & toxic hazards of occupation and industry 3. Describe the health hazards of air, water, noise, radiation and pollution 4. Enumerate and describe specific occupational health hazards, their risk factors and preventive measures 5. Describe the socio-cultural factors, family (types), its role in health and disease & demonstrate in a simulated environment the correct assessment of socio-economic status 6. Describe the method of assessing socioeconomic status of the family, micro financing 7. Understand the concepts of health economics including planning, programming, budgeting 8. Understand the concepts of GDP, GNP, poverty line, budget allocation for health etc 9. Describe various social security, social assistance, government programs and schemes for economically backward people 10. Describe the importance of health insurance in preventing catastrophic expenditure and economic instability at family level. 11. Describe and discuss the epidemiology and pathogenesis and risk factors economic impact and clinical evolution of type 2 diabetes 12. Define and describe the concept of Disaster management, 13. Describe man-made disasters in the world and in India 14. Describe the details of the National Disaster management Authority

Socio-emotional Teaching & learning objectives	At the end of final year the learner should be able to, <ol style="list-style-type: none"> 1. Enumerate the rights and entitlements of differently abled persons 2. Counsel an economically backward family on the utilization of government programs and schemes 3. Communicate the importance of health insurance to the individuals and families 4. Reflect on economic growth, GDP allocation on health at national level 5. Reflect on how the out of pocket expenditure, economic impact of various illnesses on health seeking behavior of the people
Behavioural Teaching & learning objectives	At the end of final year the learner should be able to, <ol style="list-style-type: none"> 1. Calculate the socioeconomic status of the family using suitable scales 2. Assess the impact of illness on the socioeconomic status of the family and vice versa 3. Conduct awareness sessions on government programme, schemes for economically backward sections of the society 4. Plan and recommend a suitable diet for the individuals and families based on local availability of foods and economic status, etc in a simulated environment 5. Identify, discuss and defend medico legal, sociocultural, economic and ethical issues as it pertains to rights, equity and justice in access to health care 6. Identify, discuss and defend medico legal, sociocultural, economic and ethical issues as they pertain to in vitro fertilization donor insemination and surrogate motherhood 7. Demonstrate adequate knowledge and use of information technology that permits appropriate patient care and continued learning 8. Demonstrate ability to use local resources whenever required like in mass disaster situations

Topics for SDG 8 “Decent Work and Economic Growth”

1. Socio economic determinants of health and well-being
2. Principles and practice of health economics
3. Assessment of socioeconomic status of families
4. Public spending on health sector and health care budgeting
5. Economic impact of various communicable and non-communicable diseases
6. National programs, schemes and provisions for economically backward sections of society
7. Social security and assistance measures
8. Concepts and economic impacts of disasters
9. Career opportunities for the students after under graduation and post graduation in various fields

Learning approaches and methods for SDG 8 “Decent Work and Economic Growth”

1. Family health advisory survey at rural and urban communities to understand overall health and economic status of families
2. Family adoption programme to horizontally follow up the socioeconomic status factors influencing health and disease
3. Problem base learning and case based learning sessions on socioeconomic status assessment and impact of economic status on health and well being of families
4. Role plays and videos on health insurance, social security and social assistance schemes
5. Visit to health centers to understand the national programs and schemes for economically backward people and budgeting for health programs

SDG 9 - Industry, Innovation and Infrastructure



Build infrastructure, promote inclusive and sustainable industrialization and foster innovation

Teaching & Learning objectives for SDG 9 “Industry, Innovation and Infrastructure”

Subject/ topic/ course in regular curriculum relating to SDG -2	Anatomy, Physiology, Biochemistry, Pharmacology, Community Medicine, Forensic Medicine, General Surgery, Paediatrics, Anaesthesia, EMD and OBG
Cognitive Teaching & learning objectives	<p>At the end of 1st Professional year the learner should be able to,</p> <ul style="list-style-type: none"> 1. Describe the embalming and plastination techniques 2. Discuss conduction of human experiments and animal experiments with computer assisted learning <p>At the end of 3rd Professional year part 1, the learner should be able to,</p> <ul style="list-style-type: none"> 1. Describe and discuss Ethical Guidelines for Biomedical Research on Human Subjects & Animals 2. Discuss human experimentation including clinical trials 3. Describe the importance and advantages of simulated environments like mannequins in learning surgical skills and procedures 4. Describe classification of hospital waste and appropriate methods of disposal. 5. Define cold chain and discuss the methods of safe storage and handling of vaccines 6. Enumerate recent investigation techniques in diagnosis of various illnesses 7. Describe the concepts in disaster management 8. Describe and demonstrate the application of computers in epidemiology 9. Describe the principles of management of information systems 10. Discuss health problems among people in different occupational settings including ergonomics 11. Describe the role, benefits and functioning of the employees state insurance scheme
Socio-emotional	At the end of final year the learner should be able to

Teaching & learning objectives	<ol style="list-style-type: none"> 1. Communicate and counsel patients and families on the outcome and rehabilitation demonstrating empathy and care. 2. Can feel empathy, responsibility and solidarity for and with people suffering from disaster 3. Can observe and reflect on the implementation of the program by visiting the Rural Health Centre 4. Identify various issues during outbreaks and their prevention
Behavioural Teaching & learning objectives	<p>At the end of final year the learner should be able to</p> <ol style="list-style-type: none"> 1. Perform basic clinical examination in simulated environment/ mannequins 2. Perform basic surgical Skills such as First aid including suturing, I.V. access, bladder catheterization, endotracheal intubation, Splintage, demonstrate the stages of normal labor etc in simulated environment like mannequins 3. Demonstrate the steps in Basic Life Support and Advanced cardiac life support in adults and children using mannequins 4. Demonstrate the use of learning management system 5. Demonstrate the application of computers in epidemiology 6. Observe, demonstrate and interpret human experiments and animal experiments with computer assisted learning 7. Demonstrate ability to use local resources whenever required like in mass disaster situations 8. Formulate a research question for a study and demonstrate ability to conduct research in pursuance to guidelines or research ethics

Topics for SDG 9 “Industry, Innovation and Infrastructure”

1. Plastination techniques
2. Molecular biology and genetics
3. Novel drug delivery systems and drug development
4. Conduct health education sessions and counselling at community setting on management of disaster with available sustainable resources
5. Development of vaccines and the phases of vaccine trials
6. ICH-GCP, GLP, GEP
7. Describe the details of the National Disaster management Authority
8. Describe Socioeconomic factors influencing infrastructure and innovation.
9. Research Methodology and bio-statistics
10. Impact of new technologies and quality infrastructure on economic growth and social development
11. Local, national and global challenges and conflicts in achieving sustainability in infrastructure and industrialization
12. Basic life support and advanced cardiac life support using mannequins
13. E learning
14. Occupational health

Learning approaches and methods for SDG 9 “Industry, Innovationand Infrastructure”

1. Demonstration on disaster management with limited resources at community settings
2. Conduction of research fair to share innovative research ideas
3. Role play on the effect of non availability of internet access and technology in learning
4. Poster competition and essay writing on the methods of using renewable resources and sustainable products in order to preserve natural resources, disaster risk reduction, fossil fuel free transport systems etc.
5. Visit to Centre of Excellence in Molecular biology and Regenerative Medicine to understand innovations in basic research and laboratory infrastructure to conduct molecular research
6. Visit to CDSA- Centre of clinical research excellence to understand the clinical research and vaccine trials
7. Visit to central animal house to understand drug discovery and testing
8. Provide platform to discuss on modification of the education system to stimulate the creation of ideas and projects
9. Guide and encourage students to apply research projects for funds at various funding agencies

SDG 10 - Reduced Inequalities



Reduce inequality within and among countries

Teaching & Learning objectives for SDG 10 “Reduced Inequalities”

Subject/ topic/ course in regular curriculum relating to SDG 10	Community Medicine, Forensic Medicine, Obstetrics and gynecology, Pediatrics
Cognitive Teaching & learning objectives	<p>At the end of 2nd professional year, the learner should be able to:</p> <ol style="list-style-type: none"> 1. Understand the concept of equity, equality, justice and inequality 2. Discuss the role of sociocultural, socioeconomic, geopolitical systems in achieving health equity 3. Describe the role of health equity in health and well-being of communities 4. Compare and contrast the health problems, health services and health seeking behavior in rural, urban and tribal areas at different parts of the country 5. Identify, discuss medico-legal, sociocultural and ethical issues pertaining to decision making in health care 6. Discuss on inequality that is contextual to gender, age, vulnerability, social and economic status, patient preferences, beliefs and values 7. Describe the sociocultural factors, family (types), its role in health and disease 8. Describe poverty, social security measures and its relationship to health and disease <p>At the end of 3rd professional year, part-1 the learners should be able to,</p> <ol style="list-style-type: none"> 1. Discuss national and regional health care policies including the National Health 2. Describe the principles of primary health care in context to equitable distribution of services. 3. Mission that incorporates National Rural Health Mission (NRHM) and National

	<ol style="list-style-type: none"> 4. Urban Health Mission (NUHM), frameworks, economics and systems that influence health promotion, health care delivery, disease prevention, effectiveness, responsiveness, quality and patient safety 5. Describe the methods of organizing health promotion and education and counselling activities at individual family and community setting 6. Describe the role, benefits and functioning of the employees state insurance scheme 7. Describe health planning in India and National policies related to health, health planning, millennium development goals and sustainable development goals 8. Describe the concept and strategies for universal health coverage
Socio-emotional Teaching & learning objectives	<p>At the end of final year, the learner should be able to:</p> <ol style="list-style-type: none"> 1. Demonstrate ability to communicate to patients in a respectful, non-threatening, non-judgmental and empathetic manner 2. Counsel and raise awareness to individuals and community about inequalities. 3. Counsel the vulnerable individuals, families and communities on reduced inequalities 4. Provide education on inequalities in their surroundings as well as in the wider world and can recognize the problematic consequences
Behavioural Teaching & learning objectives	<p>At the end of final year, the learner should be able to:</p> <ol style="list-style-type: none"> 1. Demonstrate in a simulated environment the correct assessment of socioeconomic status 2. Demonstrate the steps in evaluation of health promotion and education program 3. Identify and analyze different types of causes and reasons for inequalities. 4. Conduct health education sessions at community level on various social security, assistance measures and national health programs

Topics for SDG 10 “Reduced Inequalities”

1. Social, economic and political inclusion versus inequalities (on national and global levels) – typical discriminatory categories
2. Equity, equality, justice and inequality in health and well-being
3. Social determinants of health and well-being
4. Different indicators to measure inequality
5. Migration and mobility of people
6. Principles, elements and functions of primary health care
7. Universal health coverage
8. Social security, social assistance schemes and national health programs to reduce inequalities
9. Health insurance and prevention of catastrophic health expenditures
10. Socioeconomic status and scales to measure it
11. Role of families and communities on health and wellness
12. Health planning in India and National policies related to health, health planning, millennium development goals and sustainable development goals
13. Ethical and legal issues related to reducing inequalities.
14. Laws and legislations to prevent inequalities in various aspects

Learning approaches and methods for SDG 10 “Reduced Inequalities”

1. Problem based and case based discussions on innovations in health care and diagnostics
2. Family health advisory surveys
3. Visit to health centers at rural, urban and tribal areas
4. Special annual NSS Camps in rural and tribal areas
5. Moot court sessions to impart knowledge and skills related to ethical and legal aspects related to health and well-being
6. Socioeconomic status classifications at hospital and community settings
7. Model UN general assembly session to discuss regional, national and international inequalities
8. Conduct health education session in various social security, assistance schemes and national health

SDG 11 - Sustainable Cities and Communities



Make cities and human settlements inclusive, safe, resilient and sustainable

Teaching & Learning objectives for SDG 11 “Sustainable Cities and Communities”

Subject/ topic/ course in regular curriculum relating to SDG -11	Community Medicine, Microbiology, Biochemistry, Medicine, Surgery, ENT
Cognitive Teaching & learning objectives	<p>At the end of First Professional Year, the learner should be able to;</p> <ol style="list-style-type: none">1. Define and classify hospital waste2. Describe laws related to hospital waste management3. Describe Classification of hospital waste and appropriate methods of disposal4. Describe the methods used and significance of assessing the microbial contamination of food, water and air5. Describe the aetiology and basis of water borne diseases/ jaundice/hepatitis/ diarrheal diseases6. Describe toxic pollution of environment, its medico-legal aspects & toxic hazards of occupation and industry7. Enumerate and describe the pathogenesis of disorders caused by air pollution <p>At the end of 3rd Professional Year-Part 1, the should be able to;</p> <ol style="list-style-type: none">1. Describe the health and social problems associated with rapid urbanization and globalization2. Describe toxic pollution of environment, its medico-legal aspects & toxic hazards of occupation and industry3. Enumerate and describe the pathogenesis of disorders caused by air pollution4. Describe the health hazards of air, water, noise, radiation and pollution5. Describe the concept of solid waste, human excreta and sewage disposal6. Describe concepts of safe and wholesome water, sanitary sources of water, water purification processes, water quality standards, concepts of water conservation and rainwater harvesting

	<p>7. Describe the standards of housing and the effect of housing on health</p> <p>8. Define and describe the concept of Disaster management</p> <p>9. Describe disaster management cycle</p> <p>10. Describe man-made disasters in the world and in India</p> <p>11. Describe the details of the National Disaster management Authority</p> <p>12. Enumerate and describe the identifying features and the principles of participatory management of mental illness occurring during and after disasters</p> <p>13. Describe environmental influence on diseases of lungs</p> <p>14. Describe the role of the environment in the cause and exacerbation of obstructive airway disease</p> <p>15. Describe the environmental measures to maintain temperature</p> <p>At the end of 3rd Professional Year-Part 2, the learner should be able to;</p> <ol style="list-style-type: none"> 1. Describe the national programs for prevention of deafness, cancer, noise & environmental pollution 2. Define and describe the environmental influence of occupational lung disease
Socio-emotional Teaching & learning objectives	<p>At the end of 3rd Professional Year-Part 1, the learner should be able to;</p> <ol style="list-style-type: none"> 1. Demonstrate ability to use local resources whenever required like in mass disaster situations
Behavioural Teaching & learning objectives	<p>At the end of 3rd Professional Year-Part 1, the learner should be able to;</p> <ol style="list-style-type: none"> 1. Demonstrate ability to use local resources whenever required like in mass disaster situations 2. Counsel the patient and family on prevention of various infections due to environmental issues

Topics for SDG 11 “Sustainable Cities and Communities”

1. Urbanization. Causes of urbanization and it's health implications
2. Standard housing conditions in urban and rural areas in India
3. Slum, its upgradation, and health risks in slums
4. E-waste and its disposal
5. United Nations Educational, Scientific and Cultural Organisation (UNESCO), and its functions
6. Management and use of natural resources (renewable and non-renewable)
7. Sustainable energy and transportation
8. Laws and Regulations related to Factory workers and their safety
9. Disabled accessible cities
10. Environmental Social Responsibility

Learning approaches and methods for SDG 11 “Sustainable Citiesand Communities”

1. Role play and drills related to Disaster Management
2. Poster competitions, essay writing on soil, water, air pollution, its hazards and methods to control and prevent them.
3. Case based discussion on influence of environmental factors in diarrhoeal diseases, pneumoconiosis and other lung disorders
4. Family Health Advisory Survey to obtain first hand information of environmental conditions and its influence on health in the field practice areas of Community Medicine department.
5. Practical exercises to assess the quality of water, quality of air and demonstrate methods to detect the water quality, and demonstrate the amount of bleaching powder required for purification of water sample.
6. Field visit to the factory to understand the safety standards to be followed to prevent ill-health of workers
7. Plantation of trees or demonstrating other methods of environmental social responsibility

SDG 12 - Responsible Consumption and Production



Ensure sustainable consumption and production patterns

Teaching & Learning objectives for SDG 12 “Responsible Consumption and Production”

Subject/ topic/ course in regular curriculum relating to SDG 12	Physiology, Biochemistry, Community Medicine, General Medicine
Cognitive Teaching & learning objectives	<p>At the end of first year the learner should be able to</p> <ol style="list-style-type: none">1. Describe the processes involved in maintenance of normal pH, water & electrolyte balance of body fluids and the derangements associated with these.2. Describe and discuss the digestion and assimilation of carbohydrates from food.3. Summarize the nutritional importance of commonly used items of food including fruits and vegetables. (macro-molecules & its importance)4. Enumerate advantages and/or disadvantages of use of unsaturated, saturated and trans fats in food.5. Explains the Calorific value of common Indian foods. <p>At the end of 3rd year, part 1, the learner should be able to</p> <ol style="list-style-type: none">1. Describe the aetiology and basis of water borne diseases/ jaundice/hepatitis/ diarrheal diseases2. Describe the health hazards of water pollution3. Describe concepts of safe and wholesome water, sanitary sources of water, water purification processes, water quality standards,5. concepts of water conservation and rainwater harvesting.6. Describe food hygiene7. Describe occupational and environmental pesticides, food adulterants, pollutants and insect repellents.8. Enumerate the causative agents of food poisoning and discuss the pathogenesis, clinical course and laboratory diagnosis.9. Summarize the nutritional importance of commonly used items of

	<p>food including fruits and vegetables (macro-molecules & its importance).</p> <p>10. Describe and discuss the impact of environmental factors including eating habits, food, work, environment and physical activity on the incidence of obesity.</p> <p>11. Enumerate the causative agents of food poisoning and discuss the pathogenesis, clinical course and laboratory diagnosis.</p> <p>12. Describe the methods used and significance of assessing the microbial contamination of food, water and air.</p> <p>13. Describe the methods used and significance of assessing the microbial contamination of food, water and air.</p> <p>14. Describe the types and causes of protein malnutrition and its effects.</p> <p>15. Describe and discuss the importance and methods of food fortification and effects of additives and adulteration.</p>
Socio-emotional Teaching & learning objectives	At the end of final year the learner should be able to <ul style="list-style-type: none"> 1. Counsel an individual and family on using renewable energy sources 2. Counsel a mother on infant and young child feeding 3. Communicate the importance of balanced diet, source of various nutrients in common Indian food 4. Counsel an individual and family on environmental sanitation and hazards of environmental pollution
Behavioural Teaching & learning objectives	At the end of final year the learner should be able to <ul style="list-style-type: none"> 1. Calculate energy content of different food items, identify food items with high and low glycaemic index and explain the importance of these in the diet. 2. Celebration of National Nutrition Week (NNW) is observed from September 1-7 every year. 3. Facilitate creation of kitchen garden at the hostel and home 4. Conduct health education sessions on responsible consumption and production for school and college students 5. Judiciously utilize the non renewable energy utility points at home, workplace and hostels.

Topics for SDG 12 “Responsible Consumption and Production”

1. Consumption of the healthy foods.
2. Behavior change communication in the community
3. Production and consumption history, patterns and value chains, and management and use of natural resources (renewable and non-renewable)
4. Environmental and social impacts of production and consumption
5. Energy production and consumption (transport, commercial and residential energy use, renewable energies)
6. Food production and consumption (agriculture, food processing, dietary choices and habits, waste generation, deforestation, over-consumption of food and hunger)
7. Medical Tourism
8. Waste generation and management (prevention, reduction, recycling, reuse) Sustainable lifestyles and diverse practices of sustainable production and consumption Labeling systems and certificates for sustainable production and consumption.

Learning approaches and methods for SDG 12 “Responsible Consumption and Production”

1. Analyze different food products – Nutritive value, caloric value.
2. Micro and Macro nutrients identification.
3. Perform role plays dealing with different roles in a trading system (producer, advertiser, consumer, waste manager, etc.)
4. Screening of short films/documentaries to help the learners understand production and consumption patterns
5. Develop and run a (youth) action project related to production and consumption.
6. Develop an enquiry-based project: “Is sustainability about giving things up?”

SDG 13 - Climate Action



Take urgent action to combat climate change and its impacts
Teaching & Learning objectives for SDG 13 “Climate Action”

Subject/ topic/ course in regular curriculum relating to SDG -13	Pharmacology, Forensic medicine, Community Medicine, ENT, General Medicine
Cognitive Teaching & learning objectives	<p>At the end of 3rd Professional year part -1, the learner should be able to,</p> <ul style="list-style-type: none"> 1. Describe causes and effects of climate change 2. Describe health effects of climate change and their prevention 3. Define and describe the concept of Disaster management 4. Describe the details of the National Disaster management Authority 5. Describe the health hazards of air, water, noise, radiation and pollution as a result of climate change 6. Describe concepts of safe and wholesome water, sanitary sources of water, water purification processes, water quality standards, concepts of water conservation and rainwater harvesting 7. Describe toxic pollution of environment, its medico-legal aspects & toxic hazards of occupation and industry 8. Describe the clinical features, post-mortem finding and medico-legal aspects of injuries due to physical agents like heat (heat-hyper-pyrexia, heat stroke, sun stroke, heat exhaustion/prostration, heat cramps [miner's cramp] or cold (systemic and localized hypothermia, frostbite, trench foot, immersion foot)
Socio-emotional Teaching & learning objectives	<p>At the end of final year, the learner should be able to,</p> <ul style="list-style-type: none"> 1. Communicate to the school children on the impact of climate change on health 2. Counsel the families on utilizing renewable sources of energy to prevent the impact of climate change 3. Appreciate the consequence of climate change on health and social status of people
Behavioural Teaching & learningobjectives	<p>At the end of final year, the learner should be able to,</p> <ul style="list-style-type: none"> 1. Demonstrate ability to use local resources whenever required like in mass disaster situations

	<ol style="list-style-type: none"> 2. Conduct sessions at community setting on causes, consequences and prevention of climate hazards 3. Conduct awareness sessions on climate change and health for school children and youth
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Topics for SDG-13 Climate Action

1. Greenhouse gases and their emission.
2. Climate change and its health impact
3. Social and economic impact within households, communities and countries and between countries due to climate change related hazards.
4. Adaptation of strategies for prevention and mitigation related to disaster risk
5. Strategies to protect climate at local, National and global level.
6. International efforts to address climate change and health (Paris agreement, Jakarta declaration etc.)
7. Environmental pollution and its role in climate change

Learning approaches and Methods for SDG-13 Climate Action

1. Role-play to estimate the impact of climate change on health.
2. Case based discussion on hazards of poisonous gases
3. Project on actions towards climate protection
4. Poster competition, essay writing competition on climate change and risk of disasters in community.
5. Active participation in celebration of World Environment Day celebration.
6. Tree plantation activities at campus
7. Visits to meteorology departments to understand the climate changes and actions
8. Mock drill sessions for the disaster management

SDG 15 - Life on Land



Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

Teaching & Learning objectives for SDG 15 “Life on Land”

Subject/ topic/ course in regular curriculum relating to SDG -15	Microbiology, Pharmacology, Forensic medicine, Medicine, paediatrics, Community medicine,
Cognitive Teaching & learning objectives	<p>At the end of 3rd Professional year part-1, the learner should be able to,</p> <ul style="list-style-type: none"> 1. Describe features and management of Snake bite, scorpion sting, bee and wasp sting and spider bite 2. Describe the role of vectors in the causation of diseases. Also discuss National Vector Borne disease Control Program. 3. Describe the health hazards of air, water, noise, radiation and pollution 4. Describe concepts of safe and wholesome water, sanitary sources of water, water purification processes, water quality standards, concepts of water conservation and rainwater harvesting 5. Describe the aetiology and basis of water borne diseases/jaundice/hepatitis/ diarrheal diseases 6. Describe toxic pollution of environment, its medico-legal aspects & toxic hazards of occupation and industry <p>At the end of 3rd Professional year part -2, the learner should be able to,</p> <ul style="list-style-type: none"> 1. Describe the concept of solid waste, human excreta and sewage disposal
Socio-emotional Teaching & learning objectives	<p>At the end of final year the learner should be able to</p> <ul style="list-style-type: none"> 1. Describe and discuss Ethical Guidelines for Biomedical Research on Human Subjects & Animals 2. Counsel the families on integrated vector control and personal prophylaxis against mosquitoes

	<p>3. Counsel the youth and school children on importance of preserving flora and fauna</p>
Behavioural Teaching & learning objectives	<p>At the end of final year the learner should be able to</p> <ol style="list-style-type: none"> 1. To identify & draw medico-legal inference from common poisons e.g. dhatura, castor, cannabis, opium, aconite copper sulphate, pesticides compounds, marking nut, oleander, Nux-vomica, abrus seeds, Snakes, capsicum, calotropis, lead compounds & tobacco. 2. Identify and describe the identifying features and life cycles of vectors of Public Health importance and their control measures. 3. Conduct sessions at community setting on causes, consequences and prevention of climate hazards

Topics for SDG 15 - Life on Land

- 1. Environmental sanitation to promote the life on land
- 2. Rain waster harvesting
- 3. Biotoxicology
- 4. Strategies to protect climate at local, National and global level.

Learning approaches and Methods for SDG 15 - Life on Land

- 1. Swatch Bharat Abhiyan
- 2. Go green initiative- Green campus
- 3. Encourage public on prohibition on use of plastic bags and bottles
- 4. Training students in proper waste disposal practices and sensitising them on using the services of biomedical disposal certified agencies.
- 5. Awareness programs on rainwater harvesting and use of solar energy
- 6. Encourage students on planting trees and animal adoption.
- 7. Poster competition, essay writing competition, role play on World Environment Day celebration

SDG 16 - Peace, Justice and Strong Institutions



Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.

Teaching & Learning objectives for SDG 16 “Peace, Justice and Strong Institutions”

Subject/ topic/ course in regular curriculum relating to SDG 16	Anatomy, Pharmacology, Forensic Medicine & Toxicology, Medical Jurisprudence (Medical Law and ethics), General Surgery, The role of the physician in the community, Ethics, Anaesthesiology, General Medicine, Psychiatry, Radiotherapy.
Cognitive Teaching & learning objectives	At the end of final year the learner should be able to <ul style="list-style-type: none"> 1. Demonstrate respect and follow the correct procedure when handling cadavers and other biologic tissue. 2. Communicate with the patient with empathy and ethics on all aspects of drug use. 3. Clinical research & Ethics: Discuss human experimentation including clinical trials. 4. Describe Medical Ethics and explain its historical emergence. 5. Describe the Code of Medical Ethics 2002 conduct, Etiquette and Ethics in medical practice and unethical practices & the dichotomy. 6. Describe and discuss the ethics related to HIV patients.
Socio-emotional Teaching & learning objectives	At the end of final year the learner should be able to <ul style="list-style-type: none"> 1. Counsel family members of a patient with suspected poisoning about the clinical and medico legal aspects with empathy. 2. Counsel family members of a patient with suspected poisoning about the clinical and medico-legal aspects with empathy. 3. Counsel and communicate to patients with empathy lifestyle changes in atherosclerosis / post coronary syndromes. 4. Communicate and counsel patients and families about the treatment and prognosis of shock demonstrating empathy and care.
Behavioural Teaching & learning objectives	At the end of final year the learner should be able to <ul style="list-style-type: none"> 1. Demonstrate ability to conduct research in pursuance to guidelines or research ethics.

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| | <ol style="list-style-type: none">2. Demonstrate responsibility and work ethics while working in the health care team.3. Communicate with the patient with empathy and ethics on all aspects of drug use.4. Demonstrate Professionalism and empathy to the patient undergoing surgery.5. Demonstrate empathy in patient encounters.6. Demonstrate empathy while dealing with children with cardiac diseases in every patient encounter.7. Establish rapport and empathy with patients.8. Communicate and counsel patients and families on the outcome and rehabilitation demonstrating empathy and care.9. Display empathy in the care of patients with cancer. |
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Topics for SDG 16 “Peace, Justice and Strong Institutions”

1. Definitions of justice: retributive and rehabilitative
2. Crime and punishment, comparing laws and punishments
3. Child labour and exploitation of children
4. Global treaties and agreements related to war, peace, and refugees
5. The illegal weapons trade
6. Drug abuse and its trade
7. The international criminal court and its role
8. Role of Yoga in maintaining mental peace
9. ICH GCP guidelines
10. ICMR guidelines for research ethics
11. AETCOM Modules
12. Meaning and importance of mission, vision statements and strategic plans
13. Medical humanities

Learning approaches and methods for SDG 16 “Peace, Justice and Strong Institutions”

1. Perform a role-play about different people from around the world who are victims of injustice Have interfaith dialogues in schools and college campuses about justice and equality Organize an excursion to a local court or police station
2. Design a poster “What is fair/just”?
3. Debate issues of justice of historical and cultural context
4. Celebrate the International Day of Peace (September 21)
5. Develop an enquiry-based project: “What would a peaceful world look like?”
6. Observation of International Yoga Day (June 21)
7. Retreat camps for the students to understand the spiritual context of health and well-being and peace and justice

SDG 17 - Partnerships for the Goals



Strengthen the implementation and revitalize the global partnership for sustainable development

Teaching & Learning objectives for SDG 17 “Partnerships for the Goals”

Subject/ topic/ course in regular curriculum relating to SDG -17	Community Medicine
Cognitive Teaching & learning objectives	<p>At the end of 3rd Professional Year-Part 1, the learner should be able to;</p> <ol style="list-style-type: none"> 1. Define and describe the concept of international health 2. Describe roles of various international health agencies (World Health Organisation, United Nations International Children's Emergency Fund, United Nations Development Program, Food and Agriculture Organisation, International Labour Organisation, World Bank, Sweden International Development Agency) 3. Describe the role of various voluntary health agencies (Rockefeller Foundation, Ford Foundation, Co-operative for Assistance and Relief Everywhere, Red Cross) 4. Describe in detail various National programs (National Health Mission, National Tuberculosis Elimination program, National AIDS Control Program, National Vector Borne Disease Control Program, National programs for prevention of Anemia, Reproductive, Maternal, Neonatal, Child and Adolescent Health program, National Programme for Control of Blindness, National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke) 5. Describe in detail various Health related policies (National Nutrition Policy, National Population Policy, National Policy for Children)
Socio-emotional Teaching & learning objectives	<p>At the end of final year, the learner should be able to</p> <ol style="list-style-type: none"> 1. Appreciate the role of voluntary health agencies in providing health care 2. Reflect on the importance of partnerships and collaboration in health care.
Behavioural Teaching & learning	<p>At the end of 3rd Professional Year-Part 1, the learner should be able to;</p>

objectives	1. Collaborative research work through electives
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Topics for SDG 17 “Partnerships for the Goals”

1. International Health Regulations and its roles in disease control and prevention
2. Role of globalization in health
3. Medical tourism
4. Public private partnerships in health care
5. International health agencies and their role in health and social welfare

Learning approaches and methods for SDG 17 “Partnerships for the Goals”

1. Field visits to Primary Health Centres to learn about various National Health Programs
2. Participation in World Health Day and other health days
3. Volunteering to be members of Red Cross society and other voluntary health agencies.
4. Visit to voluntary health agencies and NGOs
5. Participate in WHO, UNICEF or other international agencies driven activities like pulse polio programme, NCD survey etc.

CONCLUSIONS

Designing and implementing, proper teaching and learning objectives related to SDGs in higher education is a need of the hour. There is a strong necessity to infuse the knowledge and skills of sustainable development among the younger generation because they will be actively involved in strategizing, implementing, and sustaining the change over in the days to come. In order to achieve comprehensive development and safer handover of the resources to the future generations, we need to empower youth on various aspects of sustainable development goals.

Incorporating the SDG based learning objectives, pedagogical approaches, assessment techniques into the formal curriculum will bring a sense of responsibility among the learners to commit themselves for contributing towards achievement of these goals. The empowered youth can act as an agent of change and sustain it over the lifetime.

Considering the scope of competency based undergraduate and post graduate medical curricula, we have tried to align our educational strategies with the sustainable development goals. We strongly hope that this approach will facilitate the teachers to understand and implement more practical and socially relevant teaching-learning methods and students to learn and acquire knowledge and skills in this domain. The ultimate goal is to empower everyone with the sufficient knowledge and skills related to sustainable development goals and involve them in extending their contributions towards achieving these goals.

Learning objectives for the teachers to promote SDGs

1. Know about sustainable development, the different SDGs and related topics and challenges
2. Understand how each of their specialty and sub-specialty fits into various aspects of the sustainable development goals
3. Understand how the preventive, promotive, curative and rehabilitative services can be aligned with SDGs and their targets
4. Undertake research projects and write meaningful publications in line with the SDGs
5. Link their specific learning objectives, teaching learning strategies and assessment techniques with the sustainable development goals wherever they are relevant.
6. Develop their own integrative view of the issues and challenges of sustainable development by considering the social, ecological, economic and cultural dimensions from the perspective of the principles and values of sustainable development, including that of inter-generational and global justice
7. Take disciplinary, interdisciplinary and trans-disciplinary perspectives on issues of global change and their local manifestations
8. Update their knowledge and skills towards recent advances and developments in the local and global context in relation to SDGs and communicate the same to the students in appropriate situations
9. Organize and attend regional, national and international conferences on sustainable development goals
10. Understand how cultural diversity, gender equality, social justice, environmental protection and personal
11. development are integral elements of ESD and how to make them a part of educational processes
12. Practice an action-oriented transformative pedagogy that engages learners in participative, systemic, creative and innovative thinking and acting processes in the context of local communities and learners' daily lives.
13. Identify local learning opportunities related to sustainable development and build cooperative relationships

Key elements for whole-institution approaches

1. Align the vision, mission, strategic directions with the sustainable development goals
2. Empower the leaders, faculty members, administrators, students, communities on the importance and strategies for sustainable development goals
3. Inter-institutional networks that facilitate mutual support such as peer-to-peer learning on a whole-institution approach, and increase the visibility of the approach to promote it as a model for adaptation.

4. To develop annual action plan and targets to act on the sustainable development goals, implement the strategies and review the progress in their achievement on regular basis.
5. Implement the SDG oriented pedagogical strategies and to assess its impact on regular basis
6. To encourage faculty members and students to undertake the research projects and dissertations aligned with SDGs and showcase their research outcomes as impactful publications
7. Organize and attend CMEs, conferences, workshops, symposia at regional, national and international levels to update their knowledge and skills towards SDGs

Key methods for learning for the SDGs

1. Problem based, team based, case-based learning exercises across various specialties
2. Community oriented teaching through family health advisory survey, family adaption programs
3. Academic field visits to various places and organizations which play a major role in contributing towards sustainable development goals
4. Undertaking research projects addressing the SDGs
5. Arranging guest lectures, seminar, symposia, conferences by involving experts in the respective fields on various aspects of SDGs
6. Conducting community based and hospital based heath awareness sessions, role plays, rallies on different components of SDGs
7. Critical thinking and Reflective writing on the challenges associated with achievement of SDGs and the ways to overcome them
8. Developing professional networks and communities of practice to update the knowledge and skills pertaining to SDGs

REFERENCE

1. **Competency based medical education, volume 1, National Medical Commission.**
[UG-Curriculum-Vol-1.pdf \(nmc.org.in\)](UG-Curriculum-Vol-1.pdf (nmc.org.in))
2. **Competency based medical education, volume 2, National Medical Commission.**
[UG-Curriculum-Vol-2.pdf \(nmc.org.in\)](UG-Curriculum-Vol-2.pdf (nmc.org.in))
3. **Competency based medical education, volume 3, National Medical Commission.**
[UG-Curriculum-Vol-3.pdf \(nmc.org.in\)](UG-Curriculum-Vol-3.pdf (nmc.org.in))
4. **Attitude, ethics and communication module, National Medical Commission.**
[AETCOM book.pdf \(nmc.org.in\)](AETCOM book.pdf (nmc.org.in))
5. **Foundation course module, National Medical Commission.**
<https://www.nmc.org.in/wp-content/uploads/2020/08/FOUNDATION-COURSE-MBBS-17.07.2019.pdf>
6. **Alignment and integration module. National Medical Commission.** [Alignment-and-Integration_03.10.2019.pdf \(nmc.org.in\)](Alignment-and-Integration_03.10.2019.pdf (nmc.org.in))
7. **Pandemic management module. National Medical Commission.** <https://www.nmc.org.in/wp-content/uploads/2020/09/Pandemic-MGT-Module-UG.pdf>
8. Human Rights and the 2030 Agenda for Sustainable Development
<http://www.ohchr.org/EN/Issues/MDG/Pages/The2030Agenda.aspx>
9. OECD and the Sustainable Development Goals: Delivering on universal goals and targets
<https://www.oecd.org/dac/sustainable-development-goals.htm>
10. SDG Indicators <http://unstats.un.org/sdgs/indicators/indicators-list/>
11. The Guardian: Sustainable development goals: all you need to know
<https://www.theguardian.com/global-development/2015/jan/19/sustainable-development-goals-united-nations>
12. The UN Sustainable Development Knowledge Platform [sustainabledevelopment.un.org](https://sustainabledevelopment.un.org/topics/sustainabledevelopmentgoals)
<https://sustainabledevelopment.un.org/topics/sustainabledevelopmentgoals>
13. UNESCO and Sustainable Development Goals <http://en.unesco.org/sdgs>
14. UN Sustainable Development / SDGs <http://www.un.org/sustainabledevelopment/sustainable-development-goals>
15. World Economic Forum: What are the Sustainable Development Goals?
<https://www.weforum.org/agenda/2015/09/what-are-the-sustainable-development-goals>
16. British Council: Sustainable Development Goals resource https://schoolsonline.britishcouncil.org/sites/default/files/sdg_education_pack_v3.pdf
17. Gaia Education's Design for Sustainability E-learning Programme
<http://www.gaiaeducation.org/index.php/en/online>
18. GlobalGiving: Crowdfunding for the SDGs <https://www.globalgiving.org/sdg/>
19. Green Pack: Teaching material on sustainability issues <http://education.rec.org/green-pack.html>
20. OpenLearn. The Open University: Material for self-study on all kinds of topics
<http://www.open.edu/openlearn/>
21. OXFAM: A selection of suggested teaching ideas around the SDGs
<https://www.oxfam.org.uk/education/resources/sustainable-development-goals>
22. Sustainability Gamepedia: A database of games related to sustainability
<http://www.games4sustainability.org/gamepedia/>
23. Teaching and Learning for a Sustainable Future: Resources for teachers about teaching approaches as well as classroom activities on diverse topics related to sustainability

- http://www.unesco.org/education/tlsf/mods/theme_gs.html
24. Teach UNICEF: Collection of teacher resources on the SDGs
<https://teachunicef.org/teaching-materials/topic/sustainable-development-goals>
 25. The Goals.org: Free global education and learning portal on sustainable development solutions <http://www.thegoals.org>
 26. The Lazy Person's Guide to Saving the World <http://www.un.org/sustainabledevelopment/takeaction>
 27. The Story of Stuff: An online resource that investigates the humanity's unsustainable use of materials <http://storyofstuff.org>
 28. The World We Want. A Guide to the Goals for Children and Young People
http://www.unicef.org/agenda2030/files/TWWW_A4_Single_Page_LowRes_English.pdf
 29. The Youth resource pack from MYCI: Methodologies for introducing the SDGs to young people in an engaging and informative manner
http://www.youth.ie/sites/youth.ie/files/SDGs_Youth_Resource%20_Pack.pdf
 30. UNESCO: Good Practices in Teacher Education Institutions <http://unesdoc.unesco.org/images/0015/001524/152452eo.pdf>
 31. World's Largest Lesson: Find everything you need to introduce the SDGs to young people, take part and take action <http://worldslargestlesson.globalgoals.org>
 32. Young Masters Programme on Sustainable Development: Online courses and international exchange between students on sustainable development
<http://www.goymp.org/en/frontpage>
 33. YUNGA Challenge Badges: Developed in collaboration with UN agencies, civil society and other organizations, YUNGA Challenge Badges aim to raise learners' awareness, educate and motivate them to change their behaviour and become active agents
 34. of change in their local community. The series can be used by teachers in school classes as well as by youth leaders. <http://www.fao.org/yunga/resources/challenge-badges/en/>
 35. Organizations and initiatives
 36. Eco-Schools Networks <http://www.ecoschools.global>
 37. Food and Agriculture Organization of the United Nations (FAO) <http://www.fao.org/home/en/>
 38. GAIA Education <http://www.gaiaeducation.org>
 39. Global Ecovillage Network <http://www.gen.ecovillage.org> Global Footprint Network
<http://www.footprintnetwork.org/en/>
 40. [index.php/GFN/](#)
 41. Higher Education Sustainability Initiative (HESI) <https://sustainabledevelopment.un.org/sdinaction/hesi>
 42. ICLEI: Local Governments for Sustainability <http://www.iclei.org> International Institute for Sustainable Development
 43. <http://www.iisd.org>
 44. Sustainable Development Solutions Network <http://unsdsn.org> UNESCO ASPnet schools
<http://www.unesco.org/new/en/education/>
 45. [networks/global-networks/aspnet](#)
 46. United Nations Development Programme <http://www.undp.org/> United Nations Environment Programme <http://www.unep.org> World Federation of UNESCO Clubs, Centres and Associations
 47. (WFUCA) <http://wfuca.org/>
 48. World Health Organization <http://www.who.int/en/>
 49. Education for Sustainability Starter Kit <http://www.sustainableschoolsproject.org/tools-resources/starter-kit>
 50. Education for Sustainable Development Toolkit <http://www.esdtoolkit.org/>
 51. German Curriculum Framework Education for Sustainable Development

[http://ensi.org/global/downloads/Publications/418/
Curriculum%20Framework%20ESD%20final%201.pdf](http://ensi.org/global/downloads/Publications/418/Curriculum%20Framework%20ESD%20final%201.pdf)

52. Guide to Education for Sustainability
<http://sustainableschoolsproject.org/sites/default/files/EFSGuide2015b.pdf>
53. Guide to Quality and Education for Sustainability in Higher Education
<http://efsandquality.glos.ac.uk/>
54. Shaping the future we want. UN Decade of ESD. Final report <http://unesdoc.unesco.org/images/0023/002303/230302e.pdf>
55. UNESCO's Roadmap to ESD. Implementing the Global Action Programme
<http://unesdoc.unesco.org/images/0023/002305/230514e.pdf>
56. UNESCO's Teaching and Learning for a Sustainable Future <http://www.unesco.org/education/tlsf/>
57. Vanderbilt University's Guide for Teaching Sustainability <https://cft.vanderbilt.edu/guides-sub-pages/teaching-sustainability>
58. Whole-school approaches to sustainability: A review of models for professional development in pre-service teacher education
59. (Australian Research Institute in Education for Sustainability) <http://aries.mq.edu.au/projects/preservice/files/TeacherEduDec06.pdf>
60. Lotz-Sisitka, H., Wals, A. E., Kronlid, D. and McGarry, D. 2015. Transformative, transgressive social learning: rethinking higher education pedagogy in times of systemic global dysfunction. Current Opinion in Environmental Sustainability, Vol. 16, pp. 73–80.
61. McCormick, K., Muhlhauser, E., Norden, B., Hansson, L., Foung,
62. C., Arnfalk, P., Karlsson, M. and Pigretti, D. 2005. Education for sustainable development and the Young Masters Program. Journal of Cleaner Production, Vol. 13, No. 10-11, 1107-1112.
63. Mezirow, J. 2000. Learning as transformation: critical perspectives on a theory in progress. San Francisco, Jossey-Bass.
64. Organisation for Economic Co-operation and Development (OECD). 2009. Green at Fifteen? How 15-year-olds Perform in Environmental Science in PISA 2006. Paris, OECD.
65. Organisation for Economic Co-operation and Development (OECD). 2016. Global competency for an inclusive world. <https://www.oecd.org/pisa/aboutpisa/Global-competency-for-an-inclusive-world.pdf> (Accessed 29 October 2016)
66. Rauch, F., Steiner, R. 2013. Competences for education for sustainable development in teacher education. CEPS Journal, Vol. 3, No. 1, pp. 9–24
67. Rieckmann, M. 2012. Future-oriented higher education: Which key competencies should be fostered through university teaching and learning? Futures, Vol. 44, No. 2, pp. 127–135.
68. Rychen, D.S. 2003. Key competencies: Meeting important challenges in life. Rychen, D.S. and Salganik, L.H. (eds). Key competencies for a successful life and well-functioning society. Cambridge, MA, Hogrefe and Huber, pp. 63–107.
69. Schulz, W., Ainley, J., Fraillon, J., Kerr, D. and Losito, B. 2010.
70. ICCS 2009 International Report: Civic knowledge, attitudes, and engagement among lower-secondary school students in 38 countries. Amsterdam, International Association for the Evaluation of Educational Achievement.
71. Slavich, G. M. and Zimbardo, P. G. 2012. Transformational Teaching: Theoretical Underpinnings. Basic Principles, and Core Methods. Educational Psychology Review, Vol. 24, No. 4, pp. 569–608.
72. Sleurs, W. 2008. Competencies for ESD (Education for Sustainable Development) teachers. A framework to integrate ESD in the curriculum of teacher training institutes. http://www.unece.org/fileadmin/DAM/env/esd/inf.meeting.docs/EGonInd/8mtg/CSCT%20Handbook_Extract.pdf (Accessed 17 June 2016)

73. Tsuneki, H. and Shaw, R. (forthcoming): Current policy development regarding Education for Sustainable Development and Climate Change Education in Costa Rica. Kyoto, Kyoto University.
74. United Nations Economic Commission for Europe (UNECE) 2005. UNECE Strategy for Education for Sustainable Development. <https://www.unece.org/fileadmin/DAM/env/documents/2005/cep/ac.13/cep.ac.13.2005.3.rev.1.e.pdf> (Accessed 30 October 2016)
75. United Nations Economic Commission for Europe (UNECE). 2012. Learning for the Future: Competences in Education for Sustainable Development. http://www.unece.org/fileadmin/DAM/env/esd/ESD_Publications/Competences_Publication.pdf
76. (Accessed 17 June 2016)
77. UNESCO. 2009. Bonn Declaration. http://www.desd.org/ESD2009_BonnDeclaration080409.pdf (Accessed 30 October 2016)
78. UNESCO. 2014. Shaping the Future We Want. UN Decade of Education for Sustainable Development (2005-2014). Final Report. <http://unesdoc.unesco.org/images/0023/002301/230171e.pdf> (Accessed 14 June 2016)
79. UNESCO. 2014b. UNESCO Roadmap for Implementing the Global Action Programme on Education for Sustainable Development. <http://unesdoc.unesco.org/images/0023/002305/230514e.pdf> (Accessed 14 June 2016)
80. UNESCO. 2014c. EFA Global Monitoring Report 2013/4 – Teaching and Learning: Achieving quality for all. Paris, UNESCO. <http://www.uis.unesco.org/Library/Documents/gmr-2013-14-teaching-and-learning-education-for-all-2014-en.pdf>
81. (Accessed 15 December 2016)
82. UNESCO. 2015a. Rethinking Education. Towards a global common good? <http://unesdoc.unesco.org/images/0023/002325/232555e.pdf> (Accessed 16 October 2016)
83. UNESCO. 2015b. Thematic Indicators to Monitor the Education 2030 Agenda. Technical Advisory Group Proposal. <http://www.uis.unesco.org/Education/Documents/43-indicators-to-monitor-education2030.pdf> (Accessed 29 October 2016)
84. UNESCO. 2016. Education 2030. Incheon Declaration and Framework for Action. Towards inclusive and equitable quality education and lifelong learning for all. Paris, UNESCO. <http://www.uis.unesco.org/Education/Documents/incheon-framework-for-action-en.pdf> (Accessed 16 October 2016)
85. United Nations. 2012. The future we want. Outcome document of the United Nations Conference on Sustainable Development, Rio de Janeiro, Brazil, 20–22 June 2012. <https://sustainabledevelopment.un.org/content/documents/733FutureWeWant.pdf> (Accessed 16 October 2016)
86. United Nations. 2015. Transforming our world: the 2030 Agenda for Sustainable Development. Resolution adopted by the General Assembly on 25 September 2015. http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E (Accessed 16 October 2016)
87. Vare, P. and Scott, W., 2007. Learning for a Change: Exploring the Relationship between Education and Sustainable Development. Journal of Education for Sustainable Development. 1(2), 191–198.
88. Wals, A.E.J. 2015. Beyond unreasonable doubt. Education and learning for socio-ecological sustainability in the Anthropocene. Wageningen, Wageningen University. https://arjenwals.files.wordpress.com/2016/02/8412100972_rvb_inauguratie-wals-oratieboekje_v02.pdf (Accessed 14 June 2016)
89. Wiek, A./Withycombe, L./Redman, C.L. 2011. Key competencies in sustainability: a

reference framework for academic program development. *Sustainability Science*, Vol. 6, No. 2, pp. 203–218



'Touching the lives of Millions'

Focusing on a purpose as expansive and yet as specific as improving quality of life through Human Development, the JSS Mahavidyapeetha has grown from strength to strength. A long and healthy life, Education for all and a decent standard of living, the indicators of Human development, have been the underlying philosophy of Jagadguru Sri Veerasimhasana Mahasamsthana Math, Suttur Srikshethra, for centuries. This is also the philosophy for which the Mahavidyapeetha today stands for.

Under the untiring efforts of Jagadguru Dr. Sri Shivarathri Rajendra Mahaswamiji, the Mahavidyapeetha has witnessed enormous growth in the field of education and today has over 300 institutions under its fold, from kindergartens to postgraduate centres and postdoctoral research catering to the educational needs of more than 1,00,000 students.

The Mahavidyapeetha continues to play an important role in expanding the scope of its activities to several branches of knowledge, welfare, and culture. Its educational efforts span crèches for toddlers of working rural women, schools to impart primary and secondary education in both Kannada and English medium, Colleges, Polytechnics, Technical, Medicine, etc. For realizing its mission, it has equipped itself with an extensive infrastructure and an army of dedicated and highly qualified human resource. These institutions, located in strategic areas, serve a broad spectrum of society, from virtually remote tribal villages to metropolitan cities such as Bengaluru, Noida, New Delhi, Ooty, and Coimbatore, besides their presence in United States, Mauritius, and Dubai.

Apart from formal education, the initiatives stretch to integrated rural development through training and empowering of rural folk, reaching out healthcare to people through modern and traditional Indian systems of medicine, patronizing literary activities, visual arts, performing arts, restoration of temples and historical monuments.

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