JSS ACADEMY OF HIGHER EDUCATION & RESEARCH
(DEEMED TO BE UNIVERSITY) MYSURU

Department of Nutrition & Dietetics
JSS AHER

SUSTAINABLE DEVELOPMENT GOALS

Education for

Education 2030

Sustainable Development Goals

Teaching & Learning Objective Handbook

Education for

Sustainable Development Goals

Teaching & Learning Objective

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

FOREWORD

The Sustainable Development Goals (SDGs) introduced in the year 2015 is a follow up of the Millennium Development Goals (MDGs) implemented in 2000. It is a vital framework, which calls attention to meet the challenges towards creating a sustainable future with an impressive target of **"Leaving No One Behind"**. Achievement of SDGs calls for collective efforts of stakeholders from Government, Non-governmental organizations, Higher Educational Institutions, Multi-national agencies, Civilian organizations, and Public.

While the countries around the globe are seriously addressing several issues on the way towards achieving the SDGs, it is becoming evident that these goals cannot be achieved in complete if the younger generation are not made aware of the goals. The best possible means of reaching the youth is through the curriculum, either in schools or in universities. The United Nations has called upon the countries to incorporate the SGDs into the existing curriculum, aligning the teaching and learning aspects in line with the goals. JSS Academy of Higher Education & Research has emerged as a renowned institute in the country by providing quality education of highest standards through innovation in academic and research activities even during the most difficult times, for instance, the recent pandemic. JSS AHER has initiated the task of educating students and staff on the SDGs by incorporating the goals into the existing curriculum. Under the able guidance of the HEI, School of Life Sciences is committed to contribute towards achieving the SDGs through its multi-disciplinary academic excellence, research, innovation, environmental protection, and inclusiveness. Since its inception, the School of Life Sciences has seen an exponential growth in a short span of time due to the unique programs, which are being offered in five departments and eight divisions, keeping in mind the problems of the society. The School sees that most of the activities are closely aligned with the vision of sustainable development goals. The programs are designed to address the issues of the society pertaining to water, health, food and environment. The school stands today as a unique institution in the country known for multidisciplinary and interdisciplinary teaching and research in Life Sciences. We have attempted to identify potential courses that can be aligned to the tune of SDGs in the curriculum across the syllabi, which were recently revised according to the NEP 2020.

I take this opportunity to express my sincere gratitude to the leadership of JSS Academy of Higher Education & Research for their constant support and cooperation towards all our initiatives. I thank all the faculty members both teaching and non-teaching for having contributed towards a noble cause of achieving the SDGs through Education.

Raveesha

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PREFACE

The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its heart are the 17 Sustainable Development Goals (SDGs), which are an urgent call for action by all countries - developed and developing - in a global partnership. They recognize that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests. Today, the Division for Sustainable Development Goals (DSDG), Department of Economic and Social Affairs (UNDESA) in the United Nations provides substantive support and capacity building for the SDGs and their related thematic issues, including water, energy, climate, oceans, urbanization, transport, science and technology. In order to make the 2030 Agenda a reality, broad ownership of the SDGs must translate into a strong commitment by all stakeholders to implement the global goals. The SDGs also have strong relevance to universities and the tertiary and academic sectors more broadly.

Nutrition is both a maker and a marker of development. Improved nutrition is the platform for progress in health, education, employment, empowerment of women and the reduction of poverty and inequality, and can lay the foundation for peaceful, secure and stable societies. Malnutrition will represent an often-invisible impediment to the successful achievement of the SDGs. It results not just from a lack of sufficient and adequately nutritious and safe food, but from a host of intertwined factors linking health, care, education, water, sanitation and hygiene, access to food and resources, women's empowerment and more. With sustainable nutrition approach and translational nutrition education, the burden of malnutrition, communicable and NCDs prevalence can be significantly minimized, hence achieving the public health nutrition security.

JSS Academy of Higher Education & Research has introduced the National Education Policy - NEP from the year academic 2021. The NEP curriculum of the UG and PG at the Department of Nutrition & Dietetics involves imparting nutrition education to people at large for improving their quality of life and dietetics involves translating nutritional science and information about food into practical dietary advice. The motto of our department is safe and healthy food for ALL, and hence striving to translate Sustainable Development Goals (SDGs) into a strong commitment and working towards achieving SDG goals directly such as No poverty, Zero hunger, Good Health & wellbeing, Quality Education, Clean Water and Sanitation, Gender Equality, Descent work & economic growth, and the programs indirectly supports in achieving the remaining SDGs.

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INTRODUCTION

The Sustainable Development Goals – an ambitious and universal agenda to transform our world
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. The Government of India is strongly committed to the 2030 Agenda, of SDGs.

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.

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

1 NO POVERTY
2 ZERO HUNGER
3 GOOD HEALTH AND WELL-BEING
4 QUALITY EDUCATION
6 CLEAN WATER AND SANITATION
13 CLIMATE ACTION
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
15 LIFE ON LAND
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
8 DECENT WORK AND ECONOMIC GROWTH
10 REDUCED INEQUALITIES
11 SUSTAINABLE CITIES AND COMMUNITIES
5 GENDER EQUALITY
14 LIFE BELOW WATER
16 PEACE, JUSTICE AND STRONG INSTITUTIONS
7 AFFORDABLE AND CLEAN ENERGY
17 PARTNERSHIPS FOR THE GOALS

MSC NUTRITION & DIETETICS

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	• The Course MSc in Nutrition & Dietetics • All the course units & topics • Good nutrition promotes good health, which in turn increases productivity leading to increased earning capacity & decreased risk of poverty. • Making headway against undernutrition will have wide-reaching consequences for improving health and working to end poverty.
Cognitive Teaching & learning objectives	**At the end of 1st Professional year the learner should be able to,** • Understand the concepts of good health throughout the life cycle, how ill health has impact on work productivity eventually affecting economic status and quality of life. the extreme and relative poverty and can critically reflect on their underlying cultural and normative assumptions and practices. • know about the current prevalence of disease burden at local, national and global levels and its direct / indirect influence on individual psychology and work performance. **At the end of 2nd year and course the learner should be able to,** • Know about the situation & strategies to be implemented during extreme situations like unequal distribution of resources, climate change disaster management caused by natural hazards and environmental degradation. • Understand how extremes the extremes of wealth can influence food consumption / lifestyle pattern leading to dual burden of malnutrition.
Socio-emotional Teaching & learning objectives	**At the end of 2nd year and course the learner should be able to,** • Create nutrition and health awareness, and educate on importance of good nutrition for maintaining good health at individual as well as in community at large.

	• Counsel vulnerable population of all age groups / economic conditions encouraging them to follow good nutrition and health practices, hence promoting their cognitive ability, work capacity and performance.
Behavioural Teaching & learning objectives	**At the end of 2nd year and course the learner should be able to,** • Plan, implement, evaluate, and replicate nutritional related action plans that contribute to improved economic status. • Know about the situation & strategies to be implemented during extreme conditions like natural calamities, pandemic/endemic situations, emergencies • Form solution based plans to improve QOL, hence contributing directly/indirectly reducing poverty.

Examples of learning approaches and methods for SDG 1 "No Poverty"

- Current prevalence of disease burden at local, national and global levels
- Conceptualization, etiology and consequences of poverty on health and NCDs. Classification of socioeconomic status of the families through various scales and identification of families with poverty
- Economic impact of various health problems (Communicable, non-communicable diseases, mother and child health problems and malnutrition)
- Nutrition & food security measures to alleviate poverty and its effects.
- Various national health programs and schemes for people in BPL.

Suggested topics for SDG 2 "Zero Hunger"

- The interrelation of poverty, natural hazards, climate change and other economic, social
- and environmental shocks and stresses – Group exercise, debate, skits
- Nutrition awareness program & planning strategies for implementing during extreme
- conditions like natural calamities, pandemic/endemic situations, emergencies
- Consequences of poverty such as malnutrition, mortality, and violence -
- Competitions

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	• The Course MSc in Nutrition & Dietetics • All the course units & topics • Nutrition is the key point for the SDG 2 'End hunger, achieve food security and improved nutrition and promote sustainable agriculture' and is an essential component for achieving many of the other targets. • The course content is in alignment to the nutritional aspects of the SDGs aiming to promote healthy and sustainable diets and ensure food security globally.
Cognitive Teaching & learning objectives	**At the end of 1st year the learner should be able to,** • Know about interrelationship between food, nutrition and health, and in disease conditions. • Learn about the physical, psychological environmental effects factors leading to hunger, as well as hidden hunger, their possible impact on specific / vulnerable groups, and the concept of triple burden of malnutrition. • Know about the prevalence and distribution of hunger and malnutrition locally, nationally and globally, currently as well as historically. **At the end of 2nd year and course the learner should be able to,** • understand the need for sustainable agriculture to combat hunger and malnutrition and knows about other strategies to combat hunger, malnutrition and poor diets. • The learner can plan and propose research proposals and plans to overcome hidden hunger or any health related problem. • The learner understands the current food production rate and importance of reducing food wastage which can contribute greatly in achieving Zero Hunger SDG goal.
Socio-emotional Teaching & learning objectives	**At the end of 2nd year and course the learner should be able to,** • The learner can create a strategic plan for tackling hunger and malnutrition. • The learner can educate and create awareness on sustainable agricultural practices, promote organic & kitchen

	farming at home or educational institutions. • The learner can reflect on their own values and deal with diverging values, attitudes, and strategies in relation to combating hunger and malnutrition and promoting sustainable agriculture. • The learner can feel empathy, responsibility, and solidarity for and with people suffering from hunger and malnutrition.
Behavioural Teaching & learning objectives	• The learner can evaluate and plan actions following various standard guidelines to combat hunger and malnutrition among all. • The learner can participate in decision-making or framing policies for reducing to hunger and malnutrition and the promotion of sustainable health practices. • The learner can take on critically their role as an active professional in the challenge of combating hunger and triple burden of malnutrition. **At the end of 2nd year and course the learner should be able to,** • The learner can effectively implement the positive impact of research work to overcome hidden hunger or manage any health related problem • The learner can implement action plans for reducing food wastage such as food distribution, reaching the unreached population, creating awareness on proper diet and balanced food intake for health and disease conditions. • The learner can implement effective strategies towards ending hunger and food insecurity. • The learner will understand his/her role as nutritionist/dietician/health professional to educate the target group in achieving food security in turn successfully achieving Zero hunger goal.

Suggested topics for SDG 2 "Zero Hunger"

- Understanding the role of nutritionist / dietician for achieving Zero Hunger among ALL.
- Inter-relationship between food, nutrition and health, and in disease conditions strategic plan to combat hunger and malnutrition, to promote sustainable agriculture.
- Identification and educating vulnerable target population about hunger and malnutrition.

Examples of learning approaches and methods for SDG 2 “Zero Hunger”

- Workshops, R&D activities on positive impact of research work to overcome hidden hunger or manage any health related problem.

- Educating & awareness programs on reducing food wastage such as food distribution, reaching the unreached population,
- Creating awareness on proper diet and balanced food intake for health and disease conditions.
- Carry out survey analyses on management strategies to combat hunger, reduce food waste and promote sustainable agriculture.

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	• The Course MSc in Nutrition & Dietetics. • All the course units & topics. • The course content aims at rejuvenation and restoration of normal health & nutritional status among health and disease conditions of all age groups. • The course enables learners to aim at ensuring healthy lives and promote well-being for all, at all ages.
Cognitive Teaching & learning objectives	**At the end of 1st course the learner should be able to,** • Know concepts of good health, hygiene and well-being. • Understand the importance of balanced nutrition during life cycle and factors contributing to inter-generation vicious cycle of malnutrition. • Understand the demographic prevalence, and trend analysis of various communicable and non- communicable diseases. **At the end of 2nd year and course the learner should be able to,** • Understands the inter relation between of mental, physical and physiological health & well being. • Know about relevant prevention strategies to foster positive physical and mental health and well-being, including preventive and management methods.
Socio-emotional Teaching & learning objectives	**At the end of 1st year the learner should be able to,** • Educate and create awareness on proper diet & nutrition, physical activity, WASH & lifestyle practices. • Counsel people with empathy and provide achievable targets for achieving good health or to overcome/manage illnesses. • Communicate about issues of health, including reproductive health, pediatric and geriatric population. **At the end of 2nd year and course the learner should be able to,** • Can plan and provide a holistic approach for tackling health issues and improve health /disease related knowledge,

	attitude and practices among people. • Can develop professional commitment towards promoting health and well-being for persons needing specific attention, helping improve their QOL.
Behavioural Teaching & learning objectives	**At the end of 1st year the learner should be able to,** • Reach the unreach, to be part of planning, implementation & policy making process at all hierarchies. **At the end of 2nd year and course the learner should be able to,** • Can plan and help implementing health promoting behaviors & lifestyle in people. • Can plan, implement, evaluate and replicate nutritional & lifestyle strategies suitable for specific age, disease conditions. • Develop professional skills, understand & map the achievable targets for target people which is imperative for achieving the goal of good health & well being.

Suggested topics for SDG 3 "Good Health and Well-being"

- Identifying gender related nutrition & health issues and planning of nutrition intervention strategies targeting the vulnerable population.
- Health problems of vulnerable groups and in the most vulnerable regions, and an understanding of how gender inequalities may affect health and well-being
- Reducing food fads & promote healthy eating habits among young generation.
- Reduce triple burden of malnutrition & physical inactivity

Examples of learning approaches and methods for SDG 3 "Good Healthand Well-Being"

- Commemoration & celebrating food & nutrition day/week, reaching the unreach to promote good health and overall well being.
- Develop professional commitment towards promoting health and well-being for target population helping improve their quality of life.

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	• The Course MSc in Nutrition & Dietetics. • Topics in specific - Life Cycle Nutrition & Physiology, Community Nutrition, Maternal & Child Nutrition, Principles of Diet Therapy, Medical Nutrition Management, • The course content has been designed to provide quality education for dual population, the 'Learners' through the course content and the 'target population' getting educated through nutrition care process and nutrition counseling. • The course ensures quality health / nutrition education for the 'Learners' providing equal opportunity for learning & knowledge dissemination process in 'target' people.
Cognitive Teaching & learning objectives	**At the end of 1st year the learner should be able to,** • Understand the important role of health, nutrition & lifestyle education and the continuum learning opportunities for as main drivers of sustainable development, for improving people's lives and in achieving the sdgs. • Understand the importance of providing nutrition education for all, in particular supporting the vulnerable / underprivileged people. **At the end of 2nd year and course the learner should be able to,** • Know about the plans for reaching target people at large for nutrition education such as academic institutions, hospitals, home for underprivileged/disabilities, old age homes through formal / informal access routes. • Know about overcoming gender / social / cultural / regional inequality barriers for providing quality education and lifelong learning opportunities for all.
Socio-emotional Teaching & learning objectives	**At the end of 1st year the learner should be able to,** • Can create awareness on the importance of quality nutrition education for all • The learner is able to establish professional importance through various strategies to identify and motivate people to follow the strategic plan for improving their health condition. • The learner can recognize the intrinsic value of education

	and create target specific learning / educational aids. • Recognize their own strengths, skills hence improving the teaching and learning quality lifelong.
Behavioural Teaching & learning objectives	**At the end of 1st year the learner should be able to,** • Contribute to facilitating and implementing quality nutrition education & awareness for all. • Support the development of policies promoting free, equitable and quality education for all. • Make people understand, good nutrition is required to achieve full developmental potential, which increases the odds of quality education. • Use all opportunities for their own education throughout their life, and to apply the acquired knowledge in everyday situations to promote sustainable development.

Suggested topics for SDG 4 "Quality Education"

- Quality education for selection of right food at the right price for feeding themselves & their families.
- Formal, non-formal and informal learning process, following various governmental & NGOs at all levels for improving people's lives and sustainable development
- Critically thinking for access to good nutrition education including the factors affecting food choices & accessibility.

Examples of learning approaches and methods for SDG 4 "Quality Education"

- Develop partnerships between schools, universities and other institutions.
- Plan and run a quality education awareness campaign.
- Field visits to orient the nutrition education with personalized and community needs /demands.
- Seminars and guest lectures on various advancements in nutrition and allied health sciences to update the student's knowledge.

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	• The Course MSc in Nutrition & Dietetics. • Topic - Maternal & Child Nutrition • The course aims at providing education / employment opportunity for both genders, as well as nutritional support for all target population, irrespective of gender.
Cognitive Teaching & learning objectives	**At the end of 1st year the learner should be able to,** • Understand the concept of good balanced nutrition for both genders. • Understand the importance of normal nutritional needs for woman throughout life span. **At the end of 2nd year and course the learner should be able to,** • Provide nutrition education and create an opportunity for family participation to support and maintain the nutritional, physical, mental and psychological health and empowerment of woman. • Understands about the vicious cycle of malnutrition in woman, and importance of nutrition to tackle the problem.
Socio-emotional Teaching & learning objectives	**At the end of 1st year the learner should be able to,** • Can recognize the myths and facts in the traditional perception of health, nutrition and lifestyle approaches followed for girl/woman critically, while respecting cultural sensitivity. **At the end of 2nd year and course the learner should be able to,** • Can identify the nutritional risks and related health complications, plan for preventive strategies. • Can reflect on their own gender identity and gender roles. • Can feel empathy and solidarity with those who differ from personal or community gender expectations and roles.
Behavioural Teaching & learning objectives	**At the end of 2nd year and course the learner should be able to,** • Can educate and create awareness about gender equality and importance of nutrition in woman, which in-turn improves nutrition and health at household level. **At the end of 2nd year and course the learner should be able to,**

	• Can evaluate, participate in and influence through counseling process, enabling woman for following nutrition intervention strategies, which will positively impact on their health, nutrition and well being, also helps in breaking the vicious cycle of malnutrition. • Can educate and encourage implementation of household strategies ensuring both partners and all family members informed and involved, in decision-making for improved nutrition, such as supporting optimal breastfeeding practices, iron-folic acid supplements for anaemia prevention, promoting long-term advances gender equality.

Suggested topics for SDG 5 "Gender Equality"

- Nutrition intervention strategies, which will positively impact on their health, nutrition and wellbeing, also helps in breaking the vicious cycle of malnutrition.
- Reducing gender inequality, discrimination and promoting participation of all in nutrition & health related decision-making process.
- Prevention, prohibition, and redressal of sexual/gender harassment, gender related nutrition insults at all places.

Examples of learning approaches and methods for SDG 5 "Gender Equality"

- Celebrate the International Day for the Elimination of Violence Against Women.
- Explore & community awareness programs how vicious cycle of malnutrition affect women, girls and men at all stages of life.
- Project works on improving the food, nutrient and lifestyle of vulnerable groups helping reducing the disease burden.

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	• Topics - Fundamentals of Food Science, Life Cycle Nutrition & Physiology, Medical Nutrition Management, Community Nutrition, Maternal & Child Nutrition. • Access to safe water and sanitation reduces undernutrition, helps prevention and management of various disease conditions.
Cognitive Teaching & learning objectives	**At the end of 2nd year and course the learner should be able to,** • Understand the importance of water, the causes, effects and consequences of water pollution and water scarcity on health. • Knows about the prevalence of water related disorders / diseases. • Can relate the concept of access to safe drinking-water, sanitation, and hygiene (WASH) services, its positive impact on nutrition.
Socio-emotional Teaching & learning objectives	**At the end of 2nd year and course the learner should be able to,** • Can participate in activities of improving water and sanitation management at schools, local communities, and community at large, promote water conservation, WASH practices, recycling of water. • Can create awareness about consumption of potable water, water pollution, and saving methods. • Can see the value in good sanitation and hygiene standards. • Can question socio-economic differences as well as gender disparities in the access to safe drinking water and sanitation facilities.
Behavioral Teaching & learning objectives	**At the end of 1st year the learner should be able to,** • Help implementation of safety guidelines and tools on WASH practices, mindful usage of water, at household / institution levels. • Participate in risk assessment to identify, prioritize, manage and monitor coordinated action to protect public health with support of Anganwadi centres, PHC's, Govternment / NGO's. • Reduce their individual water footprint and to save water practicing their daily habits. **At the end of 2nd year and course the learner should be able to,**

	• Can be participate in addressing critical issues such as a lack of access to diverse food and micronutrients, limited access to healthcare and inadequate water, sanitation and hygiene (WASH), which are essential for preventing malnutrition. • Can evaluate, participate in and influence decision-making on management strategies of local, national and international enterprises related to water pollution.

Suggested topics for SDG 6 "Clean Water and Sanitation"

- The importance of adequate and equitable sanitation and hygiene, water quality and quantity parameters for health.
- Impacts of water pollution on agriculture and the nutrient quality of the crops.
- Water- and sanitation-related activities and programmes such as rain water harvesting, conservation of water resources.
- Strategies to maintain sanitation & hygiene at home, work place, health are set ups.
- Importance of Water & sanitation in sustainable development – strategies to tackle water scarcity, floods, water conservation, WASH practices.

Examples of learning approaches and methods for SDG 6 "Clean Waterand Sanitation"Suggested topics for SDG 1 "No Poverty" for students workshop

- Calculate water footprint (WF) at individual, home & institutional levels.
- Develop partnerships between institutions, schools, PHCs and regions with abundance or scarcity of water.
- Organize visits to local water infrastructures, checking & monitoring water quality at schools, urban and rural setups.
- Develop a project / awareness campaign on water and its importance, water conservation, water recycling, Green environment.
- Awareness programs on WASH practices - at schools, institutions, Anganwadi centres and vulnerable areas on WASH practices to reduce burden of infections and development of related health disorders.
- Strategies to educate & implement WASH practices at household & community levels, especially in children under five reducing the risk of infections & diarrhea.
    - The interrelation of poverty, natural hazards, climate change and other economic, social and environmental shocks and stresses – Group exercise, debate, skits
    - Nutrition awareness program & planning strategies for implementing during extreme conditions like natural calamities, pandemic/endemic situations, emergencies
    - Consequences of poverty such as malnutrition, mortality, and violence - Competitions

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 7	• Topics - Fundamentals of Food Science, Community Nutrition. • The course topics indirectly covers aspects on delivering more food with less and cleaner energy, food and agriculture systems.
Cognitive Teaching & learning objectives	**At the end of 2nd year and course the learner should be able to,** • Understands the concept of using clean and natural energy resources efficiently with amalgamation of new technologies. • Can improve critical thinking on impact of different energy resources (renewable and non-renewable) on nutrient quality of foods, health issues, environmental impacts, and their share in the energy mix at the local, national and global level. • Understands can understand the policies which can influence the usage of sustainable energy resources from farm to fork, strategies for achieving food security. • Can understand the need for sustainable food production using new and innovative technologies, technology transfer and collaboration at local and global levels.
Socio-emotional Teaching & learning objectives	**At the end of 2nd year and course the learner should be able to,** • Help in creating awareness on safe and efficient usage of natural energy resources at household and community levels. • Cooperate and collaborate with others to transfer and adapt energy technologies to different contexts and to share energy best practices of their communities. • Develop a vision, and educate all on the possible long term strategies for a reliable, sustainable energy production, helping achieving the food security.
Behavioural Teaching & learning objectives	**At the end of 2nd year and course the learner should be able to,** • Educate and implement ideas on affordable and clean energy, as it is very much needed for sustainable food supply and ensuring proper nutrient quality of foods. • Implement strategies on encouraging sustainable food resources with reduced carbon footprint.

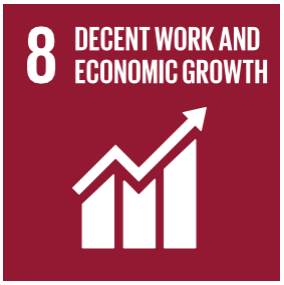
Suggested topics for SDG 7 "Affordable and Clean Energy"

- Assessment methods for clean energy sources at individuals, families, and community settings
- Magnitude of environment pollution and its effects on agro food production food & nutrient quality, direct and indirect effects on health
- Identification and providing solutions of vulnerable people visiting the health care establishments for diseases relating to environmental pollution.
- Creating awareness on environmental issues, global warming,
- Education and counseling on environmental conservation programs, policies, legislations, and strategies at schools & communities.
- Reducing food carbon prints. Promoting sustainable, renewable sources of energy.

Examples of learning approaches and methods for SDG 7 "Affordableand Clean Energy"

- Creating awareness and demonstration of use of biodegradable materials, clean environment,
- Conducting competitions, essay writing on the causes, consequences and impact of environmental pollution on food security, health.
- Discussion & current strategies on water/air borne diseases, radiation hazards
- Clean energy assessment activities as a part of family health advisory surveys at various communities.
- Projects on sustainable & renewable energy usage.

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	• The course MSc in Nutrition & Dietetics • Topics – Principles of Diet Therapy, Hospital Internship, Dissertation / Summer projects. • The course content directly / indirectly helps in professional development skills in learners, employment and economic growth through nutrition & health support for individuals and communities.
Cognitive Teaching & learning objectives	**At the end of 2nd year and course the learner should be able to,** • Understands the relationship between health and nutrition support employment and economic growth, imperative for full productive employment creating decent work environment. • Understand the ethical issues involved in healthcare setup and safeguarding the confidentiality of patient/client details, creating decent work environment. • Understands subject specific research, innovation and entrepreneurship contributing to decent work and a sustainable economy.
Socio-emotional Teaching & learning objectives	**At the end of 2nd year and course the learner should be able to,** • Can develop innovative thinking and collaborate with other sectors contributing towards self and employment opportunities for others. • The learner can develop plans for improving workplace physical and psychological health of people through proper nutrition / lifestyle support and disease management.
Behavioural Teaching & learning objectives	**At the end of 2nd year and course the learner should be able to,** • Can help implementation of appropriate guidelines for good physical and mental health at working area, increasing work capacity and outcomes needed for economic models. • The learner can also work on model systems for economic transformation which may provide increased nutrition security and sustainable agriculture. • Can develop and evaluate ideas for sustainability-driven

	innovation and entrepreneurship. • Can plan and implement entrepreneurial projects using new technologies, artificial intelligence, health care databases.

Suggested topics for SDG 8 "Decent Work and Economic Growth"

- Individual roles & responsibilities to maintain determinants of health and well-being contributing towards economic growth.
- Entrepreneurship, (social) innovation, new technologies and local economies for sustainable development.
- Develop and evaluate ideas for sustainability-driven innovation and entrepreneurship.

Examples of learning approaches and methods for SDG 8 "Decent Work andEconomic Growth"

- Encouraging student internships in healthcare setups, food industries and related sectors.
- Develop and evaluate ideas for sustainability-driven innovation and entrepreneurship.
- Plan and implement entrepreneurial projects using new technologies, artificial intelligence, health care databases.
- Engage with employers, resource persons in classroom activities, motivating students to develop work ethics & contributing in economy at individual, family and national levels.
- Strategies to reduce disease related economic burden and promote sustainable health, thus improving work performance and economy.

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 9	• Topics – Personalized Nutrition, Nutraceuticals & Functional foods, Molecular Nutrition, Hospital Internship, Dissertation / Summer projects. • The course content directly / indirectly helps in development of research and innovation skills in learners.
Cognitive Teaching & learning objectives	**At the end of 2nd year and course the learner should be able to,** • Understands the concepts of nutrition sciences, need for systemic approach for innovation in treatment and development of health products. • Understands the local, national and global challenges and conflicts in achieving sustainability in infrastructure and industrialization.
Socio-emotional Teaching & learning objectives	**At the end of 2nd year and course the learner should be able to,** • Recognize and reflect on their own personal demands on the local infrastructure such as their carbon and water footprints and food miles. • Utilize sustainable and reliable Information and communications technology processes and services for reaching the outreach, providing personalized/disease specific nutrition education. • Find industrial collaborators to develop new therapeutic food system affordable to all.
Behavioural Teaching & learning objectives	**At the end of 2nd year and course the learner should be able to,** • Implement plans for affordable access to technologies and infrastructure essential for agriculture development and food security. • The learner can find opportunities for research & innovation in development of therapeutic foods, neutraceticals/functional foods helping achieving sustainable, affordable health for all. • Will be able to support entrepreneurship and collaborative work using technological innovation in health care sector providing personalized nutrition support, cloud couselling, using electronic databases for trend analysis.

Suggested topics for SDG 9 "Industry, Innovation and Infrastructure"

- Develop and evaluate ideas for sustainability-driven innovation and entrepreneurship.
- Increasing nutrition security, good health practices and sustainable agriculture systems.
- Updates on recent advances in health care, innovations and policies for adapting new sustainable technologies at affordable prices
- Role of industry participation in developing nutrition & health security for all.

Examples of learning approaches and methods for SDG 9 "Industry, Innovationand Infrastructure"

- Conduction of expos & fairs to share innovative research ideas with industrial support.
- Role play on the effect of non availability of internet access and technology in learning
- Industry collaborative competitions for research & innovation in development of therapeutic foods, neutraceticals/functional foods helping achieving sustainable, affordable health for all.
- Support entrepreneurship and collaborative work using technological innovation in health care sector using electronic databases for trend analysis.

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	• The course MSc in Nutrition & Dietetics • The course indirectly helps in reducing inequalities among vulnerable population.
Cognitive Teaching & learning objectives	**At the end of 2nd year and course the learner should be able to,** • Know different dimensions of inequality with respect to health and nutrition security, their interrelations and current statistics of disease burden and food insecurity. • Understands the need for identification of health indicators that measure and describe inequalities and provide specific solutions. • Understands ethical principles concerning equality and aware of psychological processes that foster discriminative behaviour and decision making.
Socio-emotional Teaching & learning objectives	**At the end of 2nd year and course the learner should be able to,** • Can raise awareness about nutrition inequalities, reducing disease burden among all. • Will understand the empathy and addressing the people needs, providing accessible action plans without discrimination.
Behavioural Teaching & learning objectives	**At the end of 2nd year and course the learner should be able to,** • Plan, implement and evaluate strategies to reduce inequalities. • Identify and analyse causes and reasons for health & nutrition inequalities, provide need based solutions. • Engage in the development of public policies and corporate activities influencing positively in addressing health issues, in turn reducing inequality burden at all levels.

Suggested topics for SDG 10 "Reduced Inequalities"

- Impact of social, economic and political inequalities & discrimination on mental & oner all well being of vulnerable populations.
- Identifying the various indicators to measure inequality, and strategies to overcome the same.
- Representation of different social groups/nations in governments/on boards of meaningful and powerful institutions
- Strategies to provide health and food security for vulnerable populations like people with communicable diseases, migration, less privileged children/old age persons.

Examples of learning approaches and methods for SDG 10 "ReducedInequalities"

- Plan awareness programs to reach the unreach at rural, urban and tribal areas.
- Special annual camps & NSS activities at local, rural and tribal areas.
- Impart knowledge and skills related to ethical and legal aspects related to health and well being
- Developing public policies and activities influencing positively in addressing health issues, in turn reducing inequality burden at all levels.

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	• The course MSc in Nutrition & Dietetics has positive impact on achieving sustainable human settlements & communities.
Cognitive Teaching & learning objectives	**At the end of 2nd year and course the learner should be able to,** • Understand demographic distribution, trends of health indicators such as malnutrition, disease burden among communities. • Critically evaluate the specific health / nutrition indicator, possible root cause and implementation of suitable strategies at rural or urban setup. • Evaluate and compare the sustainability of their and other settlements' systems in meeting their needs particularly in the food security, affordable/ accessible health care, nutrition education and disease risk reduction. • Identify opportunities for making their own area more sustainable and inclusive. • Understands the role of local decision-makers and participatory governance for sustainable planning and policy for their area.
Socio-emotional Teaching & learning objectives	**At the end of 2nd year and course the learner should be able to,** • Connect with and help community groups locally and online in developing a sustainable future vision of their community to provide good health, proper nutrition, and safe environment.
Behavioural Teaching & learning objectives	**At the end of 2nd year and course the learner should be able to,** • Plan & participate in community-based food and nutrition sustainability projects. • Co-create an inclusive, safe, resilient and sustainable community.

. Suggested topics for SDG 11 "Sustainable Cities and Communities"

- Health hazards of air, water, noise, radiation and pollution .
- Policies & strategies of National health and disaster management.
- Education on use of affordable energy and waste management.
- Impact of urbanization on health & lifestyle.

Examples of learning approaches and methods for SDG 11 "Sustainable Citiesand Communities"

- Develop strategies and connect with community groups locally and online in developing a sustainable future vision of their community to provide good health, proper nutrition and safe environment.
- Visit to health care setups, industries to understand the safety standards to be followed to prevent ill-health of workers and reduce negative impact on environment.
- Implement steps to improve health and well being using various databases such as NHFS national surveys.

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	• The course MSc in Nutrition & Dietetics indirectly includes topics supporting responsible food production and consumption.
Cognitive Teaching & learning objectives	**At the end of 2nd year and course the learner should be able to,** • Understand how individual dietary and lifestyle choices influence social, economic and environmental development. • Understand production and consumption patterns, food chains, and role as nutritionist to promote mindful eating behavior. • Know about strategies and practices of sustainable food production and consumption, achieving food and nutrition security for all.
Socio-emotional Teaching & learning objectives	**At the end of 2nd year and course the learner should be able to,** • Communicate and educate the need for sustainable food production and consumption. • Encourage students, and all age groups to engage in sustainable practices for proper food consumption, reducing food wastage from farm to fork.
Behavioural Teaching & learning objectives	**At the end of 2nd year and course the learner should be able to,** • Plan, implement and evaluate consumption-related activities using existing sustainability criteria, • Implement plans on meeting the nutritional needs of growing global population which requires sustainable solutions for food production and access to water, reducing inefficient food production, greenhouse gas emissions, food carbon foot print. • Take on critically on their role as an active stakeholder in the market, can influence positively on cultural and societal orientations in consumption and production.

Suggested topics for SDG 12 "Responsible Consumption and Production"

- Understand factors influencing dietary and lifestyle choices such as social, economic and environmental for sustainable development.
- Production and consumption patterns, food chains, and role as nutritionist to promote mindful eating behavior.
- Strategies and practices of sustainable food production and consumption, achieving food and nutrition security for all.

Examples of learning approaches and methods for SDG 12 "Responsible Consumption and Production"

- Plan, implement and evaluate consumption-related activities using existing sustainability criteria,
- Plan on meeting the nutritional needs of growing global population which requires sustainable solutions for food production and access to water, reducing inefficient food production, greenhouse gas emissions, food carbon foot print.
- Play their role as an active stakeholder in the market, can influence positively on cultural and societal orientations in consumption and production.
- Screening of short films/documentaries to help the learners understand production and consumption patterns.

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	• Topics – Community Nutrition, Introduction to Food Science. • The course topics indirectly addresses the food security as well as access to fresh water resources.
Cognitive Teaching & learning objectives	**At the end of 2nd year and course the learner should be able to,** • Understand the climate change affects on global food production food security, safe water availability and need for conservation. • Understand the relationship between changing climate and its influence of food nutrient quality and nutrition health for all age groups.
Socio-emotional Teaching & learning objectives	**At the end of 2nd year and course the learner should be able to,** • Collaborate with educational institutions, communities, local bodies to develop commonly agreed-upon strategies to deal with climate change. • Address the vulnerable population at nutritional / health risk for incorporating effective dietary, lifestyle and environmental friendly strategies for sustainable health status.
Behavioural Teaching & learning objectives	**At the end of 2nd year and course the learner should be able to,** • Collaborate with environment pro organizations, local bodies promoting climate-protecting public policies and support climate-friendly economic activities.

Suggested topics for SDG 13 "Climate Action"

- Climate change and its impact on agriculture and health.
- Social and economic impact within households, communities and countries and between countries due to climate change related hazards.
- Strategies for prevention and to address the vulnerable population at nutritional / health risk for incorporating effective dietary, lifestyle and environmental friendly strategies for sustainable health status.

Examples of learning approaches and methods for SDG 13 "Climate Action"

- Poster competition, essay writing competition on climate change and risk of disasters in community.
- Active participation in celebration of Nutrition week, Food Safety day, World Environment Day.
- Collaborative action with environment pro organizations, local bodies promoting climate-protecting public policies and support climate-friendly economic activities.

SDG 14 - Life below Water

Conserve and sustainably use the oceans, seas and marine resources for sustainable development

Teaching & Learning objectives for SDG 14 "Life below Water"

Subject/ topic/ course in regular curriculum relating to SDG 14	• The course MSc in Nutrition & Dietetics, indirectly supports conservation and sustainability of marine resources.
Cognitive Teaching & learning objectives	**At the end of 2nd year and course the learner should be able to,** • Understands the importance of marine life as a source of diet diversity for all, improving economy of specific communities. • The learner knows the impact of climate change, increased industrialization, pollution on marine life.
Socio-emotional Teaching & learning objectives	**At the end of 2nd year and course the learner should be able to,** • Can speak for sustainable fishing practices, • The learner can provide food security and specific nutrient support for all age groups, ensuring good cognitive and overall development for all. • The learner can reflect on their own dietary needs, the dietary habits making sustainable use of limited resources of seafood.
Behavioural Teaching & learning objectives	**At the end of 2nd year and course the learner should be able to,** • Can directly / indirectly able to identify, access and buy sustainably harvested marine life, e.g. Ecolabel certified products. • The learner can educate on overfishing reducing environment pollution to protect marine life.

Suggested topics for SDG 14 "Life below Water"

- Concepts of safe water, sanitary sources of water, water purification processes, water quality standards,
- Strategies for water conservation and rainwater harvesting
- Reasons for water borne diseases/jaundice/hepatitis/ diarrheal diseases
- Toxic effects of water pollution & hazards of occupation and industry.

Examples of learning approaches and methods for SDG 14 "Life below Water"

- Awareness programs on rainwater harvesting and use sustainable source of energy
- Poster competition, essay writing competition, role play on World Environment Day celebration .
- Awareness on direct / indirect determinants effecting access to sustainable harvested marine life

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	• The course MSc in Nutrition & Dietetics, indirectly supports conservation and sustainable management of biodiversity and natural food resources.
Cognitive Teaching & learning objectives	**At the end of 2nd year and course the learner should be able to,** • Understands the relation between ecology, biodiversity, farming on food and nutrition security for all. • The learner can understand the conservation strategies to improve agriculture and safeguard biodiversity of the region.
Socio-emotional Teaching & learning objectives	**At the end of 2nd year and course the learner should be able to,** • Connect with biodiversity conservation, promote sustainable agricultural and farming strategies. • Create awareness on consumption and production of natural food sources, reducing risk of malnutrition and onset of diseases.
Behavioural Teaching & learning objectives	**At the end of 2nd year and course the learner should be able to,** • Connect with local groups working toward biodiversity conservation in their area. • Effectively help in implementation of agro-environmental schemes, flora and soil quality restoration which in turn helps in quality food production.

Suggested topics for SDG 15 "Life on Land"

- Improve knowledge on biodiversity conservation, promote sustainable agricultural and farming strategies.
- Understand the conservation strategies to improve agriculture and safeguard biodiversity of the region.

Examples of learning approaches and methods for SDG 15 "Life on Land"

- Create awareness on consumption and production of natural food sources, reducing risk of malnutrition and onset of diseases.
- Encourage public on prohibition on use of plastic bags and bottles.
- Training students in proper waste disposal practices.
- Implementation of agro-environmental schemes, flora and soil quality restoration which in turn helps in quality food production.

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	• The course MSc in Nutrition & Dietetics indirectly supports peace, justice by indiscriminately providing health and nutrition support for all and encourages collaboration with other institutions.
Cognitive Teaching & learning objectives	**At the end of 2nd year and course the learner should be able to,** • Understands the importance of individuals and groups in upholding values encouraging providing the right to achieve health and nutrition security for all.
Socio-emotional Teaching & learning objectives	**At the end of 2nd year and course the learner should be able to,** • Show empathy and provide accessible health care opportunity for all through institution support. • Reflect on their own personal belonging to diverse groups (gender, social, economic, political, ethnical, national, ability, sexual orientation etc.) Their access to justice and their shared sense of humanity.
Behavioural Teaching & learning objectives	**At the end of 2nd year and course the learner should be able to,** • Support the development of policies promoting peace, justice, inclusion and strong institutions. • Contribute to resolving the food insecurity, provide accessible and affordable health and nutrition care support at local and national levels, reducing the burden of malnutrition among all.

Suggested topics for SDG 16 "Peace, Justice and Strong Institutions"

- Knowledge on clinical research & Ethics, human experimentation including clinical trials.
- Designing accessible health care opportunity for all through institution support.

Examples of learning approaches and methods for SDG 16 "Peace, Justice andStrong Institutions"

- Implementing policies promoting peace, justice, inclusion and strong institutions.
- Strategies to resolve food insecurity, provide accessible and affordable health and nutrition care support at local and national levels.
- Policies & plans to reduce the burden of malnutrition among all.

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	• The course MSc in Nutrition & Dietetics involves multi-disciplinary approaches supporting building strategies and that helps in developing, maintaining and enhancing partnerships with different stakeholders.
Cognitive Teaching & learning objectives	**At the end of 1st year the learner should be able to,** • The learner will be able to understands various healthcare issues including accessibility, financing, trade policies for ending malnutrition or reducing disease burden. **At the end of 2nd year and course the learner should be able to,** • The learner understands the importance of multi-disciplinary approach, partnership goals and shared responsibility for achieving sustainable development in nutrition health care setup. • The learner recognizes the importance of cooperation on and access to science, technology and innovation, and knowledge sharing.
Socio-emotional Teaching & learning objectives	**At the end of 2nd year and course the learner should be able to,** • The learner can create awareness and involve students, nutritionists/dieticians, food scientists and health care professionals about the importance of global partnerships for sustainable health development and achieving SDG effectively.
Behavioural Teaching & learning objectives	**At the end of 2nd year and course the learner should be able to,** • The learner can take action plans and play their role towards contribution and implementation of achievable targets for sustainable health and nutrition development. • The learner through science, technology and innovation involve in research and development activities, in collaboration with different stake holders, thriving to achieve sustainable, affordable health, nutrition security and food security for all.

Suggested topics for SDG 17 "Partnerships for the Goals"

- Importance of multi-disciplinary approach, partnership goals and shared responsibility for achieving sustainable development in nutrition health care setup.
- Recognize the opportunities for collaborative research/work in fields of nutrition science, technology and innovation.

Examples of learning approaches and methods for SDG 17 "Partnerships forthe Goals"

- Invited lectures & visits to health Care set ups to learn about various National & international Health Programs
- Participation with research institutes, hospitals, industries to celebrate National nutrition week, World Health Day and other health days.
- Visit to voluntary health agencies and NGOs
- Participate in WHO, UNICEF or other international agencies driven activities like pulse polio programme, NCD survey etc.

MSC SPORTS NUTRITION & MANAGEMENT

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	• Basics of Management; Finance Management; Principles of marketing; Entrepreneurship Development; Internship
Cognitive Teaching & learning objectives	At the end of 1st Professional year the learner should be able to • Understand the concepts of decision making, leadership, employee motivation and quality management and thus contribute towards increasing the profit of an establishment. • Know about the successful business running, the concept of cost, financial accounting and working capital and thus helps in employment generation. At the end of 2nd Professional year the learner should be able to • The learner knows necessary knowledge and skills to be an entrepreneur.
Socio-emotional Teaching & learning objectives	At the end of the program, the student should be able to • Collaborate with others to empower individuals and communities to affect change in the distribution of power and resources in the community and beyond. • Raise awareness employment opportunities and improvement of one's financial status. • The learner can show sensitivity to the issues of poverty as well as empathy and solidarity with poor people and those in vulnerable situations.
Behavioral Teaching & learning objectives	At the end of the program, the student should be able to • Strengthen entrepreneurial quality, plan and implement, activities that contribute to poverty reduction. • Evaluate, participate in and influence decision-making concerning poverty generation and eradication. • Include poverty reduction, social justice and anti-corruption considerations in their consumption activities. • The learner can propose solutions to address systemic problems related to poverty.

Examples of learning approaches and methods for SDG 1 "No Poverty"

- Lectures, videos. small group discussions on the concept, causative factors, and consequences
  of poverty and overcoming it by knowledge of management and entrepreneurship.
- Case studies on the role of poverty on SHG and

  small-scale industries
- Plan and implement local service-learning and/or engagement opportunities for empowering poor people, reducing their vulnerability to different hazards and increasing their resilience – in collaboration with NGOs, the private sector and/or community groups, etc.
- Conduct a case study on poverty and wealth in selected countries (through desktop research) or at the local level (through excursions, doing interviews, etc.)
- Provide internships within organizations addressing poverty
- Develop an enquiry-based project around: "Is poverty increasing or decreasing?"

Suggested topics for SDG 1 "No Poverty" for students workshop

- Definitions of poverty – Learning exercise
- The interrelation of poverty, natural hazards, climate change and other

  economic, social and environmental shocks and stresses on nutrition

  security – Group exercise, debate, skits
- Policy frameworks at the local, national and international levels, based on

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	• Human physiology; Physiology and hematology; Nutritional assessment in Sports Nutrition; Body composition and metabolism
Cognitive Teaching & learning objectives	At the end of 1st Professional year, the learner should be able to • Know about the structure, normal functioning of human body and their body parts and their main physical and psychological effects on human life, related to nutrition perspective. • Understand the hunger and satiety sensations as influenced by hormones in the human body. Hunger motivates the consumption of food and helps in satiation. • Know the main drivers of malnutrition through anthropometric assessment and root causes of the same. • Understand concept of food group, sources, functions and metabolism of nutrients, factors affecting their utilization and need to include balanced diet to combat physiological hunger.
Socio-emotional Teaching & learning objectives	At the end of the program, the student should be able to • Communicate on the issues and connections between structural and physiological functions and utilization of nutrients in the body to achieve improved nutrition. • Create a vision for a world without physiological hunger and malnutrition. • Reflect on their own values and deal with diverging values, attitudes, and strategies in relation to combating

	hunger and malnutrition and promoting importance of nutrition. • Feel empathy, responsibility, and solidarity for and with people suffering from hunger and malnutrition.
Behavioral Teaching & learning objectives	At the end of the program, the student should be able to • Evaluate and implement actions personally to combat malnutrition. • Evaluate, participate in and influence decision-making related to malnutrition and promotion of healthy eating. • Take on critically their role as an active global citizen in the challenge of combating malnutrition. • Change their consumption practices in order to contribute to the combat against malnutrition and promotion of healthy eating.

Examples of learning approaches and methods for SDG 2 "Zero Hunger"
Perform anthropometric measurement to analyze poverty-related malnutrition
Carry out scenario development and analysis of impact of nutrition on poverty alleviation
Carry out case study analyses of adequate and non-adequate public policies or management strategies of enterprises to combat hunger, reduce food waste and promote sustainable agriculture
Organize excursions and field trips to places where nutrition program is practiced
Follow food from farm to fork – growing, harvesting and preparing food, e.g., in urban or school gardening projects
Engage students in efforts to connect leftover food with people in need

Suggested topics for SDG 2 "Zero Hunger"

Definition of the concept of hunger and malnutrition and its effect on body composition

Groups that are particularly vulnerable to hunger and malnutrition

Main drivers and root causes of hunger and malnutrition, including the relation between climate change and food security and the depletion of soil quality

Consequences of hunger and malnutrition on the health and well-being of people, including practices like migration as adaptation

Physical, emotional and socio-cultural functions of food Hunger

in relation to food abundance, obesity & food waste

Institutions and movements related to hunger and sustainable agriculture like the UN's Food and Agriculture Organization (FAO), Foodwatch, Slow Food, community-based agriculture, the international movement Via Campesina, etc.

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	• Advance Nutrition; Human physiology; Bioenergetics; Nutritional and Functional Foods; Molecular Nutrition; Clinical Sports Nutrition; Sports Specific Diet and Counseling; Nutrition In Cancer and Inflammation; Nutrition for Gut and Brain Health
Cognitive Teaching & learning objectives	At the end of 1st Professional year, the learner should be able to • Know conceptions of health, hygiene and well-being and can critically reflect on them, including an understanding of the importance of health and well-being. • Knows fact and figures about the functions of nutrients and their effect on severe communicable and non- communicable diseases, most vulnerable groups and strategies to prevent and cure them. At the end of 2st Professional year, the learner should be able to • Understand the importance of health. The learner understands the effect of drug and nutrient interaction on the functionality of the vital organs of the body and their relation to health and well-being. • Gain knowledge on the assessment and counseling aspects of nutrition specific to sports and also in general to promote overall health and performance..
Socio-emotional Teaching & learning objectives	At the end of the program, the student should be able to • Interact with people suffering from illnesses and feel empathy for their situation and feelings. • Communicate about issues of health, including, nutrients, their function, importance in maintaining physical, mental and reproductive health, and well-being • Encourage others to decide and act in favour of promoting health and well-being for all. • Create a holistic understanding of a life of health and well-being, and to establish relationship between health and importance of nutrition and indicators in identifying malnutrition.

	• Develop a personal commitment to promoting health and well-being for themselves, their family, and others, including considering volunteer or professional work in health and social care.
Behavioural Teaching & learning objectives	At the end of the program, the student should be able to • Include health promoting behaviours in their daily routines. • Appreciate the role of nutrition, develop skills on diet counseling and designing sports food formulations to improve overall health and performance • Have the capacity to perceive when others need help and to seek help for themselves and others.

Suggested topics for SDG 3 "Good Health and Well-being"

- Role of functional foods in maintain health and wellness
- Health problems of vulnerable groups and in the most vulnerable regions, and an understanding of how gender inequalities may affect health and well-being
- Direct strategies to promote health and well-being, e.g., healthy food, physical activity, mental health,
- Philosophical and ethical conceptions of life quality, well-being, and happiness
- Discriminatory attitudes towards people living with mental disorders
- Overweight and obesity, insufficient physical activity, and unhealthy food

Examples of learning approaches and methods for SDG 3 "Good Healthand Well-Being"

- Watch videos that show health-promoting behaviors
- Participate in ethical, reflective essay writing and/or discussions about what a life of health and well-being means
- Engage with storytelling by people with severe diseases, and the importance of nutrition in brain health, etc.
- Organize training on nutrition promotion and illness prevention strategies (e.g. participating in physical activities, preparing healthy food,)
- Develop an enquiry-based project, 'living healthy with good nutrition?'

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	• Basics of management; Entrepreneurship development; Internship and Dissertation
Cognitive Teaching & learning objectives	At the end of 1st Professional year, the learner should be able to • Understand 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. • Understand education as a public good, a global common good, a fundamental human right and a basis for guaranteeing the realization of other rights. • Know 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. • Understand that education can help create a more sustainable, equitable and peaceful world.
Socio-emotional Teaching & learning objectives	At the end of the program, the student should be able to • Raise awareness of the importance of quality education for all, a humanistic and holistic approach to education, and related approaches. • Use participatory methods to motivate and empower others to demand and use educational opportunities. • Recognize the intrinsic value of education and to analyse and identify their own learning needs in their personal development. • Recognize the importance of their own skills for improving their life, for employment and entrepreneurship. • Engage personally with ESD.
Behavioral Teaching & learning objectives	At the end of the program, the student should be able to • Contribute to facilitating and implementing quality education for all, ESD and related approaches at different levels. • Promote gender equality in education. • Publicly demand and support the development of policies promoting free, equitable and quality education for all, ESD and related approaches as well as aiming at safe, accessible, and

	inclusive educational facilities. • Promote the empowerment of young people. • Use all opportunities for their own education throughout their life, and to apply the acquired knowledge in everyday situations to promote sustainable development.

Suggested topics for SDG 4 "Quality Education"

- Studying successful entrepurerial ventures in sports and nutrition
- The relevance of inclusive and equitable quality education and lifelong learning opportunities for all (formal, non-formal and informal learning, including the use of ICT) and at all levels for improving people's lives and sustainable development
- Youth empowerment and empowerment of marginalized groups with entrepreneurship
- Global attainment of literacy,

  numeracy and basic skills
- Knowledge, values, skills and behaviours needed to promote sustainable development
- The concept of education for sustainable development (ESD), whole-institution approach as a key strategy to scale up education for sustainable development, and pedagogy for developing sustainability competencies

Examples of learning approaches and methods for SDG 4 "Quality Education"

Develop partnerships between schools, universities and other institutions offering education in different regions of the world

Plan and run a quality nutrition education awareness campaign

Conduct a case study on the education system and access to education (e.g. enrolment in primary education) in selected communities or countries as part of entrepreneurship

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	• M.Sc., Sports Nutrition and Management
Cognitive Teaching & learning objectives	At the end of 1st Professional year, the learner should be able to • The learner understands equal opportunity provided for both gender in terms of education given, use of infrastructure and resources available in the process of learning, hands on training and carrying out quality research. • The learner understands the basic rights of women and girls, including their right to freedom from exploitation and violence.
Socio-emotional Teaching & learning objectives	At the end of the program, the student should be able to • The learner can recognize and question the unequal distribution of resources among both the gender. • The learner can identify and speak up against all forms of gender discrimination and debate the benefits of full empowerment of all genders. • The learner can reflect on their own gender identity and gender roles. • The learner can feel empathy and solidarity with those who differ from personal or community gender expectations and roles.
Behavioral Teaching & learning objectives	At the end of the program, the student should be able to • The learner can take the measure of their surroundings to empower themselves or others who are discriminated against because of their gender. • The learner can evaluate, participate in and influence decision-making about gender equality and participation. • The learner can support others in developing empathy across genders and breaking down gender discrimination and violence. • The learner can observe and identify gender discrimination. • The learner can plan, implement, support and evaluate strategies for gender equality.

Suggested topics for SDG 5 "Gender Equality"

Gender as a social and cultural construct

Gender inequality, traditional gender roles and structural

discriminationGender equality and participation in decision-making

Gender and labour, including pay disparity and recognition of unpaid work

Gender and education, including gender equality in achieving primary, secondary and tertiary levels of education

Gender and poverty, including food security and financial dependence

Gender in community dynamics (decision-making, governance, child care, education, conflict resolution, disaster risk reduction and climate change adaptation)

Examples of learning approaches and methods for SDG 5 "Gender Equality"

Celebrate the International Day for the Elimination of Violence Against Women

Invite speakers who have experienced violence based on gender identity or

orientation

Perform role-play games that explore inclusion and identity based on gender roles

Develop an enquiry-based project: "What is the difference between equality and equity and how does it apply to the world of work?"

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	• M.Sc Sports Nutrition and Management • Entrepreneurship Development (As workshop)
Cognitive Teaching & learning objectives	At the end of 1st Professional year, the learner should be able to • understand the use of available resources efficiently and reduces waste generation. • The learner analyzes the environmental issues and deliver the best in the circumstances. • The learner knows about the constraints to access of safe drinking water and sanitation facilities..
Socio-emotional Teaching & learning objectives	At the end of the program, the learner should be able to • participate in activities of improving water and sanitation management. • communicate about efficient utilization of available resources and maintenance of sanitation in the surrounding • feel responsible for their water use and waste disposal and management. • see the value in good sanitation and hygiene standards. • question access to safe drinking water and sanitation facilities.
Behavioural Teaching & learning objectives	At the end of the program, the learner should be able to • contribute to reducing water waste, waste generation and resources management. • reduce their individual water footprint and to save water practicing their daily habits. • plan, implement, evaluate and replicate activities that contribute to hygiene, sanitation and safety. • evaluate, participate in and influence decision-making on management strategies related to water pollution.

Suggested topics for SDG 6 "Clean Water and Sanitation"

The global water cycle and water distribution

The importance of equitable access to safe and affordable drinking water (achieving water security under climate change: e.g. coping with social and economic pressure caused by frequent waves of droughts and hence water shortages, and by floods and hence too much water)

The importance of adequate and equitable sanitation and hygiene, water quality and quantity parameters for health

The human right to water and water as a global common good

Examples of learning approaches and methods for SDG 6 "Clean Waterand Sanitation"

Calculate one's own water footprint (WF)[4]

Develop a concept for local sustainable water use and supply based on success stories

Develop school partnerships between schools in regions with abundance or scarcity of

water

Organize excursions and field trips to local water infrastructures, and monitor water quality at school and

homePlan and run an awareness campaign or youth action project on water and its importance

Develop a project work on the invisible water, e.g. how much water in a litre of beer, a kilo of beef,a teeshirt, etc.

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 7	• Msc Sports Nutrition and Management
Cognitive Teaching & learning objectives	At the end of 1st professional year, the student should be able to • know about different energy resources – renewable and non-renewable – available and their efficient usage. • understand the concept of energy efficiency and sufficiency. • The learner understands how as a individual can influence the usage of available resources to avoid over usage. • The learner knows about harmful impacts of unsustainable energy utilization on the future.
Socio-emotional Teaching & learning objectives	At the end of the program, the student should be able to • communicate the need for energy efficiency and sufficiency. • assess and understand the need for affordable, reliable, sustainable and clean energy of other people. • cooperate and collaborate with others to use sustainable and efficient energy utilization
Behavioural Teaching & learning objectives	At the end of the program, the student should be able to • apply and evaluate measures in order to increase energy efficiency and sufficiency in their personal sphere. • apply basic principles to determine the most appropriate renewable energy strategy in a given situation.

Suggested topics for SDG 7 "Affordable and Clean Energy"

- Assessment methods for clean energy sources at individuals, families, and community settings
- Magnitude of environment pollution and its effects on agro food production food & nutrient quality, direct and indirect effects on health
- Identification and providing solutions of vulnerable people visiting the health care establishments for diseases relating to environmental pollution.
- Creating awareness on environmental issues, global warming,
- Education and counseling on environmental conservation programs, policies, legislations, and strategies at schools & communities.

Examples of learning approaches and methods for SDG 7 "Affordableand Clean Energy"

Conduct scenario analyses for future energy production, supply and

usage Conduct an energy saving campaign in one's own institution

or at the local level

Run a group project on how much energy is required to produce our daily needs, e.g. loaf of bread, cereal, etc.

Develop an enquiry-based project: "How are energy and human well-being linked?"

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	• Basics of Management; Finance Management; Principles of marketing; Entrepreneurship Development; Internship
Cognitive Teaching & learning objectives	At the end of 1st professional year, the student should be able to • understand the concepts of decision making, leadership, employee motivation and quality management and thus contributing towards increasing the profit of an establishment. • understand the concepts of sustained, inclusive and sustainable economic growth, full and productive employment, and decent work, including the advancement of gender parity and equality, and knows about alternative economic models and indicators. • understand the relation between employment and economic growth and knows about other moderating factors like a growing labour force or new technologies that substitute jobs. • understand how innovation, entrepreneurship and new job creation can contribute to decent work and a sustainability-driven economy and to the decoupling of economic growth from the impacts of natural hazards and environmental degradation.
Socio-emotional Teaching & learning objectives	At the end of the program, the student should be able to • discuss economic models and future visions of economy and society critically and to communicate them in public spheres. • collaborate with others to demand fair wages, equal pay for equal work and labour rights from politicians and from their employer. • understand how one's own consumption affects working conditions of others in the global economy. • identify their individual rights and clarify their needs and values related to work. • develop a vision and plans for their own economic life based on an analysis of their competencies and contexts.
Behavioural Teaching & learning objectives	At the end of the program, the student should be able to • engage with new visions and models of a sustainable, inclusive economy and decent work.

	• facilitate improvements related to unfair wages, unequal pay for equal work and bad working conditions. • develop and evaluate ideas for sustainability-driven innovation and entrepreneurship. • plan and implement entrepreneurial projects. • develop criteria and make responsible consumption choices to support fair working conditions and efforts to decouple production from the impact of natural hazards and environmental degradation.

Suggested topics for SDG 8 "Decent Work and Economic Growth"

The contributions of economies to human well-being, and the social and individual effects of unemployment

Economic ethics

Examples of learning approaches and methods for SDG 8 "Decent Work and Economic Growth"

Plan and implement entrepreneurial and social

entrepreneurial projects Run student internships in

conjunction with local businesses

Explore needs and perspectives of employers and employees

through interviews Map out multiple life and career paths

Develop an enquiry-based project: "What can my career contribute to sustainable development?"

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 9	• All practical components/finance management/ Basics of management/ Principles of marketing/Entrepreneurship development
Cognitive Teaching & learning objectives	At the end of 1st professional year, the student should be able to • understand the concepts of sustainable laboratory, infrastructure and industrialization and need for a systemic approach to their development. • The learner understands the local, national, and global challenges and conflicts in achieving sustainability in infrastructure and industrialization.
Socio-emotional Teaching & learning objectives	At the end of the program, the student should be able to • argue for sustainable, resilient, and inclusive infrastructure in their laboratories and entrepreneurial ventures. • encourage their communities to shift their infrastructure and industrial development toward more resilient and sustainable forms. • find collaborators to develop sustainable and contextual industries that respond to our shifting challenges and to reach new markets. • recognize and reflect on their own personal demands on the local infrastructure such as their carbon and water footprints and food miles.
Behavioural Teaching & learning objectives	At the end of the program, the student should be able to • identify opportunities in their own culture and nation for greener and more resilient approaches for sustainable laboratory infrastructure, understanding their overall benefits for the institution, societies, especially with regard to disaster risk reduction. • access financial services such as loans or microfinance to support their own enterprises. • work with decision-makers to improve the uptake of sustainable infrastructure (including internet access).

Suggested topics for SDG 9 "Industry, Innovation and Infrastructure"

The sustainability of information and communication technology (ICT) including supply chains, waste disposal and recycling

The relation of quality infrastructure and the achievement of social, economic and political goals

Examples of learning approaches and methods for SDG 9 "Industry, Innovationand Infrastructure"

Role-play a day without access to electricity

Develop a business continuity plan for a local enterprise after the impact of a natural hazard

Engage students and young people in developing spaces for community get-togethersDevelop an enquiry-based project: "Is all innovation good?"

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	• Dissertation/internship/experimental sports nutrition/
Cognitive Teaching & learning objectives	At the end of 1st professional year, the student should be able to • differentiate dimensions of inequality, their interrelations, and applicable statistics in terms of research. • Know the indicators that measure and describe inequalities and understands their relevance for research associated decision-making. • understand ethical principles concerning equality and is aware of psychological processes that foster discriminative behaviour and decision making.
Socio-emotional Teaching & learning objectives	At the end of the program, the student should be able to • raise awareness about inequalities in research field and can feel empathy for and to show solidarity with people who are discriminated against. • negotiate the rights of different groups based on shared values and ethical principles. • to be aware of inequalities in their internship or research surroundings as well as in the wider world and can recognize the problematic consequences. • maintain a vision of a just and equal world.
Behavioural Teaching & learning objectives	At the end of the program, the student should be able to • identify or develop an objective indicator to compare different groups, nations, etc. with respect to inequalities and find solutions in terms of indicators • plan, implement, and evaluate strategies to reduce inequalities. • engage in the development of public policies and corporate activities that reduce inequalities in research.

Suggested topics for SDG 10 "Reduced Inequalities"

Social, economic and political inclusion versus inequalities (on national and global levels) – typical discriminatory categories

Different indicators to measure inequality

Examples of learning approaches and methods for SDG 10 "ReducedInequalities"

Play simple distribution games to discuss psychological effects of unfair and unequal treatment or the exacerbation of the impacts of natural hazards on a community due to inequality

Analyse the share of different social categories in the own department and institution

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	• Nutrition in cancer & inflammation/ sports specific diet and counselling/sports genetics and performance/nutrition support for special needs/ sports psychology and eating disorders
Cognitive Teaching & learning objectives	At the end of 1st professional year, the student should be able to • The learner understands basic physical, social and psychological human needs and is able to identify how these needs are currently addressed in their own physical urban, peri-urban and rural settlements. • The learner can evaluate and compare the sustainability of their and other settlements' systems in meeting their needs particularly in the areas of food, energy, transport, water, safety, waste treatment, inclusion and accessibility, education, integration of green spaces and disaster risk reduction. • The learner understands the role of local decision-makers and participatory governance and the importance of representing a sustainable voice in planning and policy for their area.
Socio-emotional Teaching & learning objectives	At the end of program, the student should be able to • The learner can contextualize their needs within the needs of the greater surrounding ecosystems, both locally and globally, for more sustainable human settlements. • The learner can feel responsible for the environmental and social impacts of their own individual lifestyle.
Behavioural Teaching & learning objectives	At the end of program, the student should be able to • The learner can plan & participate in community-based sustainable food projects and co-create in safe, resilient, and sustainable community. • The learner can promote low carbon approaches at the local level.

. Suggested topics for SDG 11 “Sustainable Cities and Communities”

Sustainable resilient buildings and spatial planning (building materials, energy saving, planning processes) Waste generation and management (prevention, reduction, recycling, reuse)

Water cycle and restoring ground water through urban design (Green Roofs, rainwater harvesting,daylighting old riverbeds, sustainable urban drainage)

Examples of learning approaches and methods for SDG 11 “Sustainable Citiesand Communities”

Excursions to ecovillages and other “living laboratories”, to waste water treatment plants and other service centres to show current and best practice

Build a community garden

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	• All laboratory papers/entrepreneurship/ Principles of marketing
Cognitive Teaching & learning objectives	At the end of 1st professional year, the student should be able to • understand how individual choices in laboratory practices influence environment. • understand the significance and relationship between production and consumption in entrepreneurial ventures and strategies and practices to be followed for sustainable production and consumption.
Socio-emotional Teaching & learning objectives	At the end of the program, the student should be able to • communicate the need for sustainable practices and encourage others to engage in sustainable laboratory practices. • differentiate between needs and wants in entrepreneurial and laboratory practices thus aiding the future generations.
Behavioural Teaching & learning objectives	At the end of the program, the student should be able to • take critical role and be an active stakeholder in sustainable laboratory and entrepreneurial ventures

Suggested topics for SDG 12 "Responsible Consumption and Production"

Advertising, peer-pressure, belonging and identity-creation

Green economy

Examples of learning approaches and methods for SDG 12 "Responsible Consumption and Production"

Calculate and reflect on one's individual ecological footprint

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	• Physiology & Hematology, Clinical Sports Nutrition, Sport Supplements and Ergogenic Aids, Dissertation
Cognitive Teaching & learning objectives	At the end of 1st professional year, the student should be able to • be aware of good laboratory practices that minimize carbon footprints
Socio-emotional Teaching & learning objectives	At the end of the program, the student should be able to • understand personal role and responsibilities in minimizing climate change by judiciously using the laboratory resources.
Behavioural Teaching & learning objectives	At the end of the program, the student should be able to • analyze their personal impact/role and make others understand the importance of climate-friendly and climate protecting laboratory activities

Suggested topics for SDG 13 "Climate Action"
Greenhouse gases and their emission due to laboratory practices
Ethics and climate change due to laboratory practices

Examples of learning approaches and methods for SDG 13 "Climate Action"
Develop good laboratory practices

SDG 14 - Life below Water

Conserve and sustainably use the oceans, seas and marine resources for sustainable development

Teaching & Learning objectives for SDG 14 "Life below Water"

Subject/ topic/ course in regular curriculum relating to SDG 14	• Sports specific diets
Cognitive Teaching & learning objectives	At the end of 1st professional year, the student should be able to • understand the delicate balance of the marine ecosystems, and learns to maneuver around it for the water sports
Socio-emotional Teaching & learning objectives	At the end of program, the student should be able to • showcase the impact of water sports on water and water life and the value of clean healthy oceans.
Behavioural Teaching & learning objectives	At the end of the program, the student should be able to • identify, access and buy sustainably harvested marine life, e.g., ecolabel certified products.

Suggested topics for SDG 14 "Life below Water"

Examples of learning approaches and methods for SDG 14 "Life below Water"

Develop and run a (youth) action project related to life below water

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	• Entrepreneurial Development, Experimental Sports Nutrition, Internship, Dissertation, Sports Supplements and Ergogenic Aids, Nutraceuticals & Functional Foods
Cognitive Teaching & learning objectives	At the end of 1st professional year, the student should be able to • use entrepreneurial knowledge and apply it in conservation of biodiversity. • judiciously use and be part of sustainable farming/agricultural practices pertaining to nutraceutical plants.
Socio-emotional Teaching & learning objectives	At the end of the program, the student should be able to • create awareness about exploitation of the natural resources and how-to live-in harmony with the nature. • spread awareness about sustainable use of resources so that the future generation can benefit from it.
Behavioral Teaching & learning objectives	At the end of the program, the student should be able to • be part of solution driven campaigns relating to safeguard of flora and fauna. • be part of groups associated with restoration of biodiversity, and agro-forestry

Suggested topics for SDG 15 "Life on Land"
Entrepreneurial development keeping in mind the ecological balance

Examples of learning approaches and methods for SDG 15 "Life on Land"
Map the nutraceutical herbs and plants

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	• Basics of management/Sports psychology and eating disorders/Nutrition for gut & brain health
Cognitive Teaching & learning objectives	At the end of 1st professional year, the student should be able to • manage concepts, the different theories that help understand the importance of human rights of people working in organizations. • understand the importance of nutrition in proper brain development that ultimately helps in understating the concepts of peace, harmony, justice the values on which strong institutes are built.
Socio-emotional Teaching & learning objectives	At the end of program, the student should be able to • consider their role and standing in in the diverse socio-economic, cultural, and ethnic backgrounds • learn in the multicultural setup can be a brand ambassador of peace and harmony and be inclusive of all.
Behavioural Teaching & learning objectives	At the end of program, the student should be able to • be a aware global citizen who can be part of local decision-making pertaining issues like inclusiveness, peace, justice that eventually has global impact. • Be the voice of the voiceless and support groups that are for peace, justice and building strong institution.

Suggested topics for SDG 16 "Peace, Justice and Strong Institutions"

Definitions of justice: retributive and rehabilitative counselling

Examples of learning approaches and methods for SDG 16 "Peace, Justice and Strong Institutions"

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

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	• Entrepreneurship development, principles of marketing/internship/dissertation work
Cognitive Teaching & learning objectives	At the end of 1st professional year, the student should be able to • understands the importance of entrepreneurship which is dependent on partnership with both private and public stakeholders. • The learner is made aware of cooperation rather than competition to achieve goals and sustained success. • Dissertation work gives scope for the learner to explore research institutions, academies where networking, cooperation, knowledge exchange, is key for undertaking work.
Socio-emotional Teaching & learning objectives	At the end of the program, the student should be able to • raise awareness about the importance of intradepartmental, collaboration, partnerships for sustainable work and development. • The learner experiences the importance of sharing, collaborative work, the value of taking responsibilities which leads to common good and belongingness.
Behavioural Teaching & learning objectives	At the end of the program, the student should be able to • be an active partner in collaborative and knowledge exchange program the learner can become a facilitator for local, regional, national and global associations. • be source of new ideas, critical thinking, leading to sustained cooperation.

Suggested topics for SDG 17 "Partnerships for the Goals"

- Global partnerships between governments, the private sector and civil society for sustainable development, their shared accountability and possible conflicts between the different actors
- Inter departmental, institutional, global partnership in dissertation
- Local, national and global systems, structures and power dynamics
- Global governance and policies and the global market and trading system in the light of sustainable development
- Cooperation on and access to science, technology and innovation, and knowledge

  sharing Global distribution of access to the internet

Examples of learning approaches and methods for SDG 17 "Partnerships forthe Goals"

Develop partnerships or global web-based distance education experiences between schools, universities or other institutions in different regions of the world

Analyse the development and implementation of global policies on climate change, biodiversity, etc.

Develop an enquiry-based project: "Together we can….Explore this commonly used phrase and how it applies to the SDGs"

CONCLUSIONS

Institution & individual can contribute to achieving the SDGs by developing cross-cutting sustainability competencies that are needed to deal with many different sustainability challenges and to relate the different SDGs to each other. Institution can equip learners with the specific cognitive, socio-emotional and behavioural learning outcomes that enable them to deal with the particular challenges of each SDG.

To make it possible for everyone around the world to take action in favour of the SDGs, all educational institutions must consider it their responsibility to deal intensively with sustainable development issues, to foster the development of sustainability competencies and to develop the specific learning outcomes related to all SDGs. Therefore it is vital not only to include SDG-related contents in the curricula, but also to use action-oriented transformative pedagogy.

Education officials, policy-makers, educators, curriculum developers and others are called upon to rethink education in order to contribute to the achievement of the SDGs within their timeframe, between now and 2030. This guidance provides an orientation to the sustainability competencies and specific cognitive, socio-emotional and behavioural learning outcomes that are relevant to this goal, and it outlines what is needed to implement learning for the SDGs through Educational Institutions.

Education for Sustainable Development Goals - Teaching & Learning Objectives

To create a more sustainable world and to engage with issues related to sustainability as described in the Sustainable Development Goals (SDGs), individuals must become sustainability change-makers. They require the knowledge, skills, values and attitudes that empower them to contribute to sustainable development. Education is thus crucial for the achievement of sustainable development, and Education for Sustainable Development is particularly needed because it empowers learners to take informed decisions and act responsibly for environmental integrity, economic viability and a just society, for present and future generations.

This hand book guides readers on how to use education, especially to achieve the SDGs. It identifies teaching & learning objectives, suggests topics and learning activities for each SDG, and describes implementation at different levels from course design to national strategies. The document aims to support policy-makers, curriculum developers and educators in designing strategies, curricula and courses to promote learning for the SDGs.

Key elements for whole-institutionapproaches

An institution-wide process that enables all stakeholders – leadership, teachers, learners, administration – to jointly develop a vision and plan to implement ESD in the whole institution.

Technical and financial support to the institution to support its reorientation, including for instance the provision of relevant good practice examples, training for leadership and administration, the development of guidelines and associated research.

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.

. Key methods for learning for the SDGs

Collaborative real-world projects, such as service-learning projects and campaigns for different SDGs

Vision-building exercises such as future workshops, scenario analyses, utopian/dystopian story-telling, science-fiction thinking, and forecasting and back casting

Analyses of complex systems through community-based research projects, case studies, stakeholder analysis, actors' analysis, modelling, systems games, etc.

Critical and reflective thinking through fish-bowl discussions, reflective journals, etc.

Learning objectives for teachers to promote SDG

Know about sustainable development, the different SDGsand the related topics and challenges

Understand the discourse on and the practice of in local, national and global context

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 andvalues of sustainable development, including that of intergenerational and global justice

Take disciplinary, interdisciplinary and transdisciplinary perspectives on issues of global change and their local manifestations

Reflect on the concept of sustainable development, the challenges in achieving the SGDs, the importance of their own field of expertise for achieving the SDGs and their ownrole in this process

Understand how cultural diversity, gender equality, social justice, environmental protection and personal development are integral elements of ESD and how to makethem a part of educational processes

Practice an action-oriented transformative pedagogy that engages learners in participative, systemic, creative and innovative thinking and acting processes in the context oflocal communities and learners' daily lives

Act as a change agent in a process of organizational learning that advances their school towards sustainabledevelopment

Identify local learning opportunities related to sustainable development and build cooperative relationships

Evaluate and assess the learners' development of cross-cutting sustainability competencies and specific sustainability-related learning outcomes

BSC FOOD, NUTRITION & DIETETICS

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	Introduction to Food Science/ Basics of Nutrition & Dietetics/ Health & Wellness/ Development of value enhanced products/ Food Biotechnology/ Food Processing & Technology/ Public Health & Community Nutrition/ Food & Nutrition Security
Cognitive Teaching &learning objectives	**At the end of 1& 2nd Professional year, the learner should be able to,** ▪ Understand the need of Food on health and disease **addressed** at diversified geographic area by different poverty lines ▪ Demonstrate the indicators of poverty and socioeconomic status assessment scales ▪ Identify and discuss the sociocultural, economic issues pertained to poverty , rights, equity in accessing foods towards health ▪ Explain the **impact of food / nutrition security and food safety** in context to poverty and extremes of wealth affecting basic human rights and needs. ▪ Understand the Concept and application of food based approaches **At the end of 3rd Professional year , the learner should be able to,** ▪ Describe **local, national and global nutrition agencies** for the extreme health and welfare of individual with different poverty lines ▪ Understand the economic impact of various communicable and non-communicable diseases in various age groups ▪ Describe the role of **impact of traditional low cost foods** in context to poverty such as unequal distribution of resources and power, colonization, conflicts, disasters caused by natural hazards and other climate change-induced impacts, environmental degradation and technological disasters, and the lack of social protection systems and measures. ▪ Describe various health programs and the facilities available for people under below poverty line **At the end of final year the learner should be able to,**

	▪ Discuss the impact of various ailments on economic status of the individual, family and society ▪ Describe role of substance use, dependence and abuse in economic downturn of family ▪ Describe the mode of proving nutrition services based on the socioeconomic status of a individual with specific illness
Socio-emotional Teaching &learning objectives	**At the end of final year the student should be able to** ▪ Analyze the vulnerable individuals, families and communities on social, food & nutrition security and health assistance measures ▪ Illustrates the contribution of poverty towards onset, progression and consequences of various nutrition related health illnesses ▪ Support families in poverty alleviation through various government food policies, schemes and nutrition programs related to disease ▪ Express empathy, responsibility and solidarity for people with poverty and its consequences ▪ Explore **food business** avenues in context to extremes of poverty and wealth and encourage dialogue about solutions. ▪ Establish **quality food development** to the issues of poverty as well as empathy and solidarity with individuals in vulnerable situations.
Behavioural Teaching & learning objectives	**At the end of final year the learner should be able to** ▪ Demonstrate various health assessment to understand the socioeconomic status of the family and identification of families below poverty line. ▪ Demonstrate nutritional health related advise to the individuals and families with various illnesses suitable for their economic status ▪ Provide health and dietary advise for pregnant, lactating women and undernourished children by concerning the socioeconomic status. ▪ Plan, implement, evaluate, and replicate **nutrition science knowledge towards self empowerment** that contributes to poverty reduction.

Examples of learning approaches and methods for SDG1 “NoPoverty”

1. Concept, causative factors, and impact of poverty on health and disease
2. Economic impact of various health problems (Communicable, non-communicable diseases, mother and child health problems and malnutrition)
3. Concept and application of food based approaches in health care
4. Various national health programs and schemes for people below poverty line
5. Faulty health practices including Substance use, dependence and its impact on economic

Suggested topics for SDG1 “No Poverty” for students workshop

- Assessment of socioeconomic status of families using various scales like (standard of living index, etc at hospital and community settings)
- Case studies on role of poverty in health and disease
- Case based discussions on advising individuals, families and communities on their diet, environmental sanitation and prevention tailored to their economic status.
- Introductory lecture sessions on nutrition relationship with 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	Introduction to Food Science/ Basics of Nutrition & Dietetics/ Food chemistry/ Health & Wellness/ Development of value enhanced products/ Food Biotechnology/ Food Processing & Technology/ Public Health & Community Nutrition/ Food & Nutrition Security
Cognitive Teaching & learning objectives	**At the end of 1st & 2 Professional year the learner should be able to,** ▪ Classify food and describe the nutrient values of each type of foods ▪ Describe the causes and consequences of malnutrition at various age groups ▪ Know the **need of food and nutrients** towards combating hunger and malnutrition and their main physical and psychological effects on human life, and about specific vulnerable groups. ▪ Know the **food group system and food distribution system** towards combating hunger and malnutrition locally, nationally and globally, currently as well as historically. ▪ Know the impact of **quality of food development** main drivers and root causes for hunger at the individual, local, national and global level. ▪ understand the need for **sustainable food and agriculture system** to combat hunger and malnutrition worldwide and knows about other strategies to combat hunger, malnutrition and poor diets **At the end of 3rd Professional year, the learner should be able to,** ▪ Understand the burden of hunger, hidden hunger and malnutrition at state, national and international level ▪ Describe the methods of nutritional assessment

	at community level ▪ Describe the causes, clinical features, prevention, and control of nutritional health problems ▪ Discuss various community nutrition programs, policies and laws and their impact on nutritional status of community **At the end of 3rd Professional year the learner should be able to,** ▪ Describe importance and methods of nutritional assessment of vulnerable population (Under five children, adolescents, pregnant/lactating women, elderly etc) ▪ Describe the methods of dietary counselling at various scenarios
Socio-emotional Teaching & learningobjectives	**At the end of final year the learner should be able to** ▪ Analyze the vulnerable individuals, families and communities on balanced diet and nutritional health problems ▪ Analyze the individuals metabolic issues, life style disease on requiring special nutritional interventions including dietary and nutrient practices ▪ evaluate and implement **personal food and nutrition knowledge aptitude practices** to combat hunger and to promote sustainable food and agriculture. ▪ evaluate, participate and influence decision-making related **nutrition recommendations** to combat hunger and malnutrition and the promotion of sustainable agriculture. ▪ Critically could act as an **active global citizen, nutritionist,** in the challenge of combating hunger

Suggested topics for SDG2 “Zero Hunger”

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

Examples of learning approaches and methods for SDG2 “Zero Hunger”

- Demonstration of foods with their special nutritional values and their requirement standards among human beings
- Observation of nutrition weeks at peripheral health centres , community setting. Demonstration of foods with nutrient values, explaining the importance of balanced diet and special nutritional requirements at the periods of vulnerability
- Case based discussions on PEM, SAM, Micro-nutrient deficiencies
- Nutritional assessment activities as a part of family health advisory surveys
- 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	Introduction to Food Science/ Basics of Nutrition & Dietetics/ Health & Wellness/ Development of value enhanced products/
Cognitive Teaching &learning objectives	**At the end of 1st & 2nd Professional year the learner should be able to,** ▪ Define health and well-being, describe the concept of dimensions, determinants, and positive health ▪ Understands the physiological, and biochemical basis of health and well-being. **At the end of 3rd Professional year the learner should be able to,** ▪ Understand the concept of disease and illness, natural history of disease, dynamics of disease transmission, concepts of prevention and control. ▪ Discuss the etiology and pathogenesis and diagnosis of various diseases ▪ Discuss the nutrition basis for the cause of various communicable diseases and their diagnosis ▪ Describe the role of dietary strategies in treatment of various diseases **At the end of final year, the learner should be able to,** ▪ Describe and discuss the epidemiological and control measures including the use of essential laboratory tests at the primary care level for communicable diseases ▪ 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.) ▪ Describe the current status and health problems of

	Reproductive, maternal, newborn and Child Health, care of elderly and other vulnerable individuals
Socio-emotional Teaching &learning objectives	**At the end of final year the learner should be able to** ▪ Communicate with individuals, families and communities on prevention of diseases, promotion of healthy lifestyles and enhance health seeking behaviour at community setting ▪ Effectively communicate with individual attending the health centres with various illnesses ▪ Understand the individual on treatment options, medication adherence, behavioral modifications and care during special circumstances ▪ Provide nutrition care with compassion by applying the principles of ethics, empathy, humanism, and professionalism ▪ Provide holistic understanding on health and well-being, and to clarify related values, beliefs, and attitudes through nutrition
Behavioural Teaching &learning objectives	**At the end of final year the learner should be able to** Develop health promoting behaviors related to **nutrition practices** in their daily routines. Plan, implement, evaluate, and replicate **nutrition strategies** that promote health, including reproductive health, and well-being for themselves, their families, and others. ▪ Organize health education sessions at community settings on prevention and control of various predominant health problems in the community. ▪ 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. ▪ Exhibit the skills in nutrition care towards managing health issues in special circumstances like febrile condition, metabolic issues, epidemic, pandemic,etc.

Suggested topics for SDG3 “Good Health and Well-being”

- Concept, dimensions, determinants of health and well being
- Structure and functioning of human body, maintenance of milieu interior including biochemical basis of functions in human body.
- 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
- 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.
- Principles and practice of health education
- Health care during special circumstances like disaster, epidemic, pandemic etc.
- 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.

Examples of learning approaches and methods for SDG3 “Good Health

- Videos, group discussion, role plays on various health problems and their prevention
- 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
- Laboratory based exercises in identification of biochemical, pathological, microbiological basis of diseases.
- Model making, animal simulation, drug stations and prescription
- Family health advisory survey to understand sociocultural, environmental, nutritional and epidemiological factors associated with health, well-being and diseases in community setting
- Case-based learning sessions on history taking, clinical examination, diagnosis, treatment and prevention of various communicable, non-communicable diseases including mother and childcare
- Visit to primary health centres, community health centres, district hospitals, NGOs, Anganwadis to

  understand health care delivery system in India
- 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

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	Introduction to Food Science/ Basics of Nutrition & Dietetics/ Health & Wellness/ Development of value enhanced products/ Food Biotechnology/ Food Processing & Technology/ Food Preservation & Adulteration/ Nutraceuticals & Functional Foods
Cognitive Teaching &learning objectives	**At the end of 1st & 2nd Professional year, the learner should be able to,** ▪ Understand the importance of self-directed learning ▪ 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 ▪ understands the importance of foundation course program ▪ Gain communication skills and inspire confidence amongst individual across ▪ Learn to analyze the data collected from the individual and community ▪ Identify diseases/ ill-health/ malnutrition among individual **At the end of 3rd professional year, the learner should be able to,** ▪ Inspire active participation of community through nutrition strategies ▪ Continue active involvement & interaction to become the active nutritionists / reference point of the society **At the end of final year the learner should be able to,** ▪ Analyze the impact of nutrition on existing socio-economic dynamics in addition to improvement in health conditions ▪ The learner understands the importance of early nutrition support ▪ Recognize the relevance of basic sciences in diagnosis, health care and Treatment ▪ Provide a context that will enhance basic science ▪ Recognize attitude, ethics and professionalism as integral to the

	nutrition- patient relationship ▪ The learner understands that education can help to create more sustainable, equitable and peaceful world.
Socio-emotional Teaching &learning objectives	**At the end of final year, the learner should be able to,** ▪ 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. ▪ Gains participatory method skills to motivate and empower others to demand and use educational opportunities. ▪ Recognize the intrinsic value of education and identify their own learning needs in their personal development. ▪ Recognize the importance of their own skills for improving their life, for employment and entrepreneurship. ▪ Gains the importance of community health centres on health development
Behavioural Teaching &learning objectives	**At the end of final year, the learner should be able to,** ▪ Devise appropriate health education messages for public health awareness using various health communications strategies ▪ 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. ▪ 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. ▪ 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. ▪ The learner understands the important role of culture in achieving sustainability. ▪ The learner understands education as a public good, a global common good, a fundamental human right

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

Examples of learning approaches and methods for SDG4 "QualityEducation"

- Field visits to orient the medical education with community needs and demands
- Seminars and guest lectures on various advancements in health science to update the student's
  knowledge in par with scientific advances
- Project work to enhance the knowledge and skills
- Health education and awareness programs
- School health appraisal programme
- Organizing and attending international and national conferences in advancements in the field of
  nutrition
- Quiz competitions and other literary events to enhance the learning capabilities
- Workshops on skill development in various aspects of medical education
- Organize student research fair, academic fests, symposiums in various

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	• DSC 01:Introduction to Food Science/ DSC 02:Basics of Nutrition & Dietetics/ VBC 01: Health & Wellness, AECC 02: Indian Constitution, DSC 09: Public Health & Community Nutrition
Cognitive Teaching &learning objectives	**At the end of 1st & 2nd Professional year, the learner should be able to** • Understand the importance of food and health for all towards reducing gender inequality. • The learner understands the concept of gender discrimination in relation to food intake, and importance of women empowerment towards the societal and global health • Understand the scope of nutritional status with respect to gender and age specific • Know the opportunities and benefits provided by full gender equality and capacity development among women.
Socio-emotional Teaching &learning objectives	**At the end of 3rd and 4th professional year, the learner should be able to** • Recognize and question traditional perception difference among the gender with respect to food intake, health care facility. • Identify and speak up against all forms of gender discrimination and debate the benefits of full empowerment of all genders. • Reflect on their own gender identity & gender roles. • Understand about fundamental rights, duties and directive principles of constitution
Behavioural Teaching &learning objectives	**At the end of final year, the learner should be able to** • Take the measure of their surroundings to empower themselves or others who are discriminated against because of their gender. • Evaluate, participate disseminate the information of gender equality importance to the public. • Support others in developing empathy across genders and breaking down gender discrimination and violence. • The learner can plan, implement, support and evaluate strategies for gender equality with regard to nutrition support.

SuggestedtopicsforSDG5“GenderEquality”

Genderas a social and culturalconstruct
Gender inequality, traditional gender roles and structural discriminationGenderequalityandparticipationindecision-making
Genderandlabour,includingpay disparityandrecognitionofunpaidwork
Genderand education, includinggenderequality in achievingprimary, secondaryand tertiarylevels ofeducation
Gender and poverty, including food securityand financial dependence
Genderincommunitydynamics(decision-making,governance,childcare,education,conflictresolution,disasterriskreductionandclimatechangeadaptation)
Exploitation and traffickingof women andgirls
Theintersectionalityofgenderwithothersocialcategoriessuchasability, religion andrace

ExamplesoflearningapproachesandmethodsforSDG5“GenderEquality”

Celebrate the International Day for the Elimination of Violence Against Women

Invite speakers who have experienced violence based on gender identity or orientation

Perform role-playgamesthat exploreinclusionand identitybased on genderroles

Partner with groups from other parts of the world where the approach to gender may be

differentSpend a dayworking in traditionalwomen’s ormen’s work (swapwork)

Explorehownaturalhazardsanddisastersaffect women,girls,menandboysdifferently

Develop anenquiry-basedproject:“What isthedifferencebetweenequalityandequityandhowdoesitapplytotheworldofwork?”

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	Food microbiology/ Food Forensics & Toxicology/ Food Preservation & Adulteration/ Food Quality Control
Cognitive Teaching &learning objectives	**At the end of 1st & 2nd Professional year, the learner should be able to,** ▪ Describe the methods used and significance of assessing the microbial contamination of food, water and air ▪ Enumerate and describe water borne diseases with respect to their causative agents and pathogenesis **At the end of 3rd Professional year the learner should be able to,** ▪ Describe and demonstrate in a simulated environment the assessment of barriers to good health and health seeking behavior ▪ Describe the health hazards of air, water, noise, radiation and pollution ▪ Describe concepts of safe and portable water, sanitary sources of water, water purification processes, water quality standards, concepts of water conservation and rainwater harvesting ▪ Describe the epidemiology and preventive aspects of water borne diseases /jaundice/hepatitis/ diarrheal diseases ▪ Describe the procedures and importance of food hygiene ▪ Describe the concept of solid waste, and sewage disposal ▪ Describe the role of vectors in the causation of diseases. Also discuss National Vector Borne Disease Control Program ▪ Identify and describe the identifying features and life cycles of vectors of Public Health importance and their control measures ▪ Describe the mode of action, application cycle of commonly used insecticides and rodenticides ▪ Describe the types, hazards and management of biomedical waste • Understands **water as a fundamental condition of life itself, the importance of water quality and quantity**, and the causes, effects and consequences of water pollution and water scarcity.

	At the end of final year the learner should be able to ▪ Describe the clinical features, diagnosis and treatment of water borne diseases ▪ Describe the diseases related to improper personal hygiene, water pollution, improper environmental sanitation ▪ Describe the skin diseases related to improper personal hygiene and sanitation • Understands **water is part of many different complex global interrelationships and systems.**
Socio-emotional Teaching &learning objectives	**At the end of final year the learner should be able to** ▪ Take part in community activities of improving water and sanitation management ▪ Able to explain about water pollution, water access and water saving measures ▪ Analyze the individuals and families on using clean water and environmental sanitation ▪ Communicate with families on importance of waste disposal ▪ Can feel empathy, responsibility and solidarity for and with people for sanitation and hygiene. ▪ understands the concept of **Water Resources** and other strategies for ensuring the availability and sustainable management of water and sanitation, including flood and drought risk management. ▪ knows about the **global unequal distribution of access to safe drinking water and sanitation facilities**.
Behavioural Teaching &learning objectives	**At the end of final year the learner should be able to** 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"

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

Examples of learning approaches and methods for SDG6 "Clean Water and Sanitation"

- Case studies, poster competition, essay writing on the causes, consequences and impact of clean water and sanitation
- Develop **an enquiry-based project**:" What human activity can happen without water?"
- Observation of community associated work on clean water and sanitation.
- Family health advisory survey
- Case based discussions on water borne diseases.
- Assessment of hygiene of individual, family and community, planning the health sessions of the same.
- Academic visit to water treatment plant, sewage treatment plan, slaughter houses, milk diaries

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 7	Environmental studies, Public health and Community Nutrition
Cognitive Teaching &learning objectives	**At the end of 1 & 2nd Professional year, the learner should be able to,** • Understand about different energy resources as renewable and non-renewable; use of alternate energy resources. Clean energy resource concept and their importance • Understand the efficient and contemplative use of energy resources and energy conservation, methods and their importance • Know about different energy resources – renewable and non-renewable – and their respective advantages and disadvantages including environmental impacts, health issues, usage, safety and energy security, and their share in the energy mix at the local, national and global level. • Understand about efficient utilization of different energy sources and other alternative energy source utilization to conserve renewable energy sources. • Understand the concept of energy efficiency and sufficiency and knows socio-technical strategies and policies to achieve efficiency and sufficiency. • Know about harmful impacts of unsustainable energy production, understands how renewable energy technologies can help to drive sustainable development and understands the need for new and innovative technologies and especially technology transfer in collaborations between countries
Socio-emotional Teaching &learning objectives	**At the end of final year the learner should be able to** • Gain knowledge of energy conservation methods and their importance and be communicated to the society • Understands the clean energy resource concept and their importance can be disseminated to the society. • Understands the transformation in energy source production, constraints and their impact on human as well as environment. • The learner can cooperate and collaborate with others to transfer and adapt energy technologies to different contexts and to share energy

	best practices of their communities. • Communicate the need for energy efficiency and sufficiency. • The learner can assess and understand the need for affordable, reliable, sustainable and clean energy of other people/other countries or regions. • Clarify personal norms and values related to energy production and usage as well as to reflect and evaluate their own energy usage in terms of efficiency and sufficiency. • Develop a vision of a reliable, sustainable energy production, supply and usage in their country.
Behavioural Teaching &learning objectives	**At the end of final year the learner should be able to** • Apply and evaluate measures to enhance the effective and fruitful utilization of energy resources and sufficiency in their personal sphere and to increase the share of renewable energy in their local energy mix. • Apply basic principles to determine the most appropriate renewable energy strategy. • Influence public policies related to energy production, supply and usage.

Topics for SDG7 “Affordable and Clean Energy”

1. Different energy types, especially renewable energies like solar, wind, water, geothermal
2. Energy efficiency and sufficiency in energy usage
3. Political, economic and social dimensions of energy and linkage stop owe constellations, e.g. in mega energy projects like large scale solar farms or dam projects – potential conflict of interests (political and economic power (across borders), rights of especially indigenous people)
4. Environmental impacts and issues of energyproduction, supply and usage (e.g.climatechange, greyenergy)
5. The role of the public and privatesectors in ensuring the development of low carbon energy solutions.
6. Gender issues related to energy production, supply and usage

Learning approaches and methods for SDG7 “Affordable and Clean Energy”

1. Experiment with renewable energy technologies
2. Energy usage means and effective utilization of energy resources.
3. Organize excursions to energy sites including ethical discussions with pros and cons of energy types and projects
4. Conduct scenario analyses for future energy production by different means, supply and usage. own institution or at the local level

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	• Food processing, Dairy technology, Food chemistry, Community nutrition, Development of value enhanced products, Food preservation and adulteration, Food and Nutrition security, food nanotechnology, Food biotechnology, Food processing and technology industrial/Hospital internship, Food service management
Cognitive Teaching &learning objectives	**At the end of 1 & 2nd Professional year, the learner should be able to,** • Develop value added products development as entrepreneurial approach encouragement • Develop millet based product development as entrepreneurial sustainable approach • Hospital internship programs and menu planning • Food service management related activities • Dairy technology • Research project • Understand about development of value added products from locally available ingredients and their importance • Understands millet based product development as sustainable approach • Concepts of sustained, inclusive and sustainable economic growth, full and productive employment knows about alternative economic models • Understand how innovation, entrepreneurship and new job creation can contribute to decent work as sustainable approach. • Understand about development of different therapeutic food development and menu planning • Understand menu planning importance and budget planning and management in different food service institutes. • Understands the technological aspect of dairy industry • Research projects explore an individual student to get practical exposure in different field of health as well as food industrial sectors
Socio-emotional Teaching &learning objectives	**At the end of final year the learner should be able to** • Discuss and disseminate the information on product development and vision of economical development. . • Identify needs of sustainable product development technology • The learner can develop a vision and plans for their own economic

	life based on an analysis of their competencies and contexts.
Behavioural Teaching &learning objectives	**At the end of final year the learner should be able to** • Engage with new product development, inclusive of economy. • Facilitate improvements related to new technological development in the field of food industry • Develop and evaluate ideas for sustainability-driven innovation and entrepreneurship. • Plan and implement entrepreneurial projects related with millet • Plan and implement entrepreneurial projects.

Topics for SDG8 “Decent Work and Economic Growth”

1. The contributions of economies to human well-being, and the social and individual by innovation in the field of new health friendly product development.
2. Innovation in new food product development, new technologies and local economies for sustainable development
3. Self-entrepreneurial activity development
4. Assessment of socioeconomic and nutritional status of an individual, family and community.
5. Public spending on health sector and health care budgeting
6. Economic impact of various communicable and non-communicable diseases
7. National programs, schemes and provisions for economically backward sections of society
8. Social security and assistance measures
9. Concepts and economic impacts of disasters
10. Career opportunities for the students after under graduation and post-graduation in the field of food industries as analyst, product development associates, assistants and in hospitals as dietitian

Learning approaches and methods for SDG8 “Decent Work and Economic Growth”

1. Student internship sin conjunction with different food industries and other food service sectors like hotel,
2. Inviting the eminent entrepreneur for Lecture and talk
3. Food industrial visits to explore the knowledge of students
4. Family health advisory survey at rural and urban communities to understand overall health and economic status of community
5. Community development adoption programmes to horizontally follow up the socioeconomic status factors and to improve community health by nutrition education.
6. Problem base learning and case based learning sessions on socioeconomic status
7. Assessment and impact of economic status on health and well-being of families
8. Visit to health centers to understand the national programs and schemes for
9. economically backward people and budgeting for health programmes
10. Developing the enquiry-based project: “What can his/her career contribute to sustainable development?”

SDG 9 - Industry, Innovationand 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 9	• Food processing, Food chemistry, Dairy technology, Community nutrition, Development of value enhanced products, Food preservation and adulteration, Food and Nutrition security, food nanotechnology, Food biotechnology, Food processing and technology industrial /Hospital internship, Food service management.
Cognitive Teaching &learning objectives	**At the end of 1 & 2nd Professional year, the learner should be able to,** The learner understands the concepts of societal needs, nutritional importance in new food product development at industrial level, sustainable goals for innovation in the field of food industry. • Processing effect on nutritional composition of different foods. • Food preservation techniques • Food packaging • To understand the concept of food forensics and toxicology • Learners understand and learn about different food packaging materials and methods and ecofriendly packaging importance. • Learn the concept of food forensics and toxicology to minimize the health problems. Learn about the natural toxins present in food and their health hazards along with analytical techniques. • Understands the local, national and global challenges and conflicts in achieving sustainability in infrastructure and industrialization. • Pitfalls of unsustainable industrialization and in contrast knows examples of resilient, inclusive, sustainable industrial development and the need for contingency planning. • Aware of new opportunities and markets for sustainability innovation, resilient infrastructure and industrial development.
Socio-emotional Teaching &learning objectives	**At the end of final year the learner should be able to** • Find collaborators to develop sustainable and contextual food industrial innovation that respond to our shifting challenges and to reach consumers. • Recognize and reflect on their own personal demands on the local infrastructure to fulfill the consumer needs. • Encourage their communities to shift their infrastructure and industrial development toward more resilient and sustainable forms.

	• Understand about changing resource availability for production of new product and other external resources availability. Impact of new innovative ideas in the field of food industry. Societal benefits, awareness on
Behavioural Teaching &learning objectives	**At the end of final year the learner should be able to** • The learner can evaluate various forms of food industries and compare their resilience. • The learner can work with different food industry personnel to improve the knowledge of present requirement.

Learning approaches and methods for SDG9 “Industry, Innovation and Infrastructure”

1. Role-play to encourage the students to get involve in new innovative idea development
2. Develop a business continuity plan for a local enterprise after the impact of a natural
3. Conduction of research fair to share innovative research idea
4. Poster competition and essay writing on the methods of enhancing industrial innovation

Topics for SDG9“Industry, Innovation and Infrastructure”

1. Impact of new technologies and quality infrastructure on economic growth and social development
2. Local, national and global challenges and conflicts in achieving sustainability in food processing and new product development
3. Basic support in center of excellence for new innovative product development.
4. Inclusive and sustainable innovation in the new product development as sustainable approach.

SDG 10 - Reduced Inequalities

Reduce inequality withinand among countries

Teaching & Learning objectives for SDG 10 "Reduced Inequalities"

Subject/ topic/ course in regular curriculum relating to SDG 10	• Indian constitution, Community nutrition, Public health nutrition, Nutrition During Life cycle, Principles of human nutrition
Cognitive Teaching &learning objectives	**At the end of 1 & 2nd Professional year, the learner should be able to,** • The learner knows indicators of nutritional deficiency among vulnerable group, specifically women strata. • The learner understands that inequality is a major driver for societal problems and individual dissatisfaction. • The learner understands local, national and global processes that both promote and hinder equality (food distribution). • Learner understand about nutritional status enhancement of vulnerable population to improve health status. • Understand about enhancement of nutritional status of women • Improve the knowledge related with entrepreneurial development
Socio-emotional Teaching &learning objectives	**At the end of final year the learner should be able to** • The learner can raise awareness about inequalities. • The learner can feel empathy for and to show solidarity with people who are discriminated • The learner can negotiate the rights of different groups based on shared values and ethical principles. • The learner becomes aware of inequalities in their surroundings as well as in the wider world and can recognize the problematic consequences. • The learner can maintain a vision of a just and equal world.
Behavioural Teaching &learning objectives	**At the end of final year the learner should be able to** • The learner can evaluate inequalities in their local environment in terms of diet quality resource availability • The learner can identify or develop an objective indicator to compare different groups, nations, etc. with respect to inequalities. • The learner can identify and analyse different types of causes and reasons for inequalities. • The learner can plan, implement and evaluate strategies to reduce inequalities. • The learner can engage in the development of public policies and corporate activities that reduce inequalities

Topics for SDG10"Reduced Inequalities"

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

Learning approaches and methods for SDG10"Reduced Inequalities"

1. Family health advisory activities to reduce gender inequalities in food distribution
2. Visit to health centers at rural, urban and tribal areas to give importance of nutrition in women
3. Conducting Special annual NSS Camps in rural areas to encourage girl child education and nutrition education
4. Moot court sessions to impart knowledge and skills related to ethical and legal aspects related to health and well-being
5. Develop an enquiry-based project: "How does inequality influence people's happiness and health?"

SDG 11 - Sustainable Cities and Communities

Makecities 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	Food Microbiology, Food Quality Control, Food Processing and Technology, Food &Nutrition Security, Public Health and Community Nutrition
Cognitive Teaching &learning objectives	**At the end of 1 & 2nd Professional year, the learner should be able to,** • Natural energy resource management. Renewable and non-renewable; use of alternate energy resources • Sustainable energy (residential energyuse, renewable energies, community energyschemes) andtransportation • Sustainable food processing, kitchen garden, dietary choices and habits • Define and describe the concept of Disaster management 9. Describe disaster management cycle 1 • Describe man-made disasters in the world and in India. • Waste disposal and water purification • and E- coli detection in food and water • The learner understands basic physical, social and psychological human needs and is able to identify how these needs are currently addressed in their own physical urban, peri-urban and rural settlements. • Learn about sustainable foodprocessing,dietarychoices andhabits • Learners learn about waste treatment and disposal, inclusion and accessibility, education. • Learn about sustainable foodprocessing techniques, kitchen garden as sustainable approach to reduce micronutrient deficiency among vulnerable group, dietarychoices andhabits
Socio-emotional Teaching &learning objectives	**At the end of final year the learner should be able to** • The learner can connect with and help community groups locally and online in developing a sustainable future vision of their community. • The learner can reflect on their region in the development of their own identity, understanding the roles that the natural, social and technical environments have had in building their identity and culture. • The learner can contextualize their needs within the needs of the greater surrounding ecosystems, both locally and globally, for more sustainable human settlements. • The learner can feel responsible for the environmental and social impacts of their own individual lifestyle.

Behavioural Teaching &learning objectives	**At the end of final year the learner should be able to** • The learner can plan & participate in community-based sustainability projects. • The learner can participate in decision processes about their community. • The learner can co-create an inclusive, safe, resilient and sustainable community. • Disseminate the information with regard to proper dietary food intake to enhance the health of public

ExamplesoflearningapproachesandmethodsforSDG11“SustainableCitiesandCommunities”

1. Case based discussion on influence of environmental factors in communicable diseases
2. 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.
3. 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.
4. Field visit to the factory to understand the safety standards to be followed to prevent ill-health of workers

.Topics for SDG11“Sustainable Cities and Communities”

1. Urbanization. Causes of urbanization and its health implications
2. Standard housing conditions in urban and rural areas in India
3. Effective model to reduce food wastage,
4. Innovativation in the field of environment friendly packaging material usage
5. E-waste and its disposal

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	• Food Science, Nutrition Through Lifecycle, Food Quality Control, Food Processing and Technology, Food & Nutrition Security, Public Health and Community Nutrition
Cognitive Teaching & learning objectives	**At the end of the 1st year learner should be able to** • Understand the significance and interrelationship between food and nourishment • Understand the importance of food and nourishment. The learner knows the need for sustainable production and consumption of food thereby help in reducing malnutrition **At the end of 2nd year learner should be able to** • Understand the importance of nutrition through the lifecycle and how nutrition helps in establishing a healthy life stage • Understands the concepts of food security and how food processing and technology help by minimizing the food waste and achieving food security • Understand the use of locally produced foods and the establishment of kitchen garden thereby help in reducing the carbon footprint
Socio-emotional Teaching & learning objectives	**At the end of 3rd year learner should be able to** • Understand human nutrition and establishing healthy lifestyle habits for the community. • Use sustainable practices in food production and consumption **At the end of 4th year learner should be able to** • Communicate the need for reducing the food waste • Encourage others to engage in sustainable practices in food consumption and production. • Help community understand the appropriate cooking practices to minimize cooking loss
Behavioural Teaching & learning objectives	**At the end of course year learner should be able to** • Evaluate and influence the eating behavior by nutrition education • Plan, implement and evaluate activities to minimize food waste • Promote the use of locally grown foods. • Establish a connection between producers and consumers to improve the feasibility of using locally produced goods • Encourage them and work with the community to establish a community kitchen garden

Suggested topics for SDG 12 "Responsible Consumption and Production"

Five Food Group system. Food guide. Functions of food, Study of cooking methods

relationship between food and nutrition

Nutrition and Health

Energy flow in an ecosystem: food chain and food webs

Importance common processing methods.

Food production and consumption (agriculture, food processing, dietary choices and habits, waste generation, deforestation, overconsumption of food and hunger)

Waste generation and management in product development

Labelling systems and certificates for sustainable production and consumption

Examples of learning approaches and methods for SDG 12 "Responsible Consumption and Production"

Calculate and reflect on one's individual ecological footprint

Demonstration of methods to reduce food waste and waste management

Analyse different products (e.g. cell phones, computers, clothes) using Life Cycle

Analysis (LCA)

Screening of short films/documentaries to help the learners understand production and consumption patterns

Develop and run a (youth) action project related to food production and consumption

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	• Food and Nutrition Security, Environmental Science
Cognitive Teaching & learning objectives	**At the end of 1rd and 2nd year learner should be able to** • Understand that greenhouse emission has a major impact on the climate change • Understand climate change as an anthropogenic phenomenon resulting from increased greenhouse gas emissions. **At the end of 3rd year learner should be able to** • Understands food sector contributes to 22% of greenhouse gas emissions. • Understand appropriate waste management practices will help in reducing the greenhouse emissions • Knows the environment laws given by the policy makers
Socio-emotional Teaching & learning objectives	**At the end of 4th year course learner should be able to** • Explain the effect of greenhouse on climate change. • Encourage others to reduce the climate change by following sustainable practices. • Collaborate with NGOs to develop mutual strategies to deal with climate change. • Create awareness on the climate change and help community to identify and mitigate the causative factor
Behavioural Teaching & learning objectives	**At the end of the course learner should be able to** • Demonstrate appropriate waste disposal practices and help community to follow the same • Help implement changes at the community level by corresponding with the environmental protection agencies. • Make community understand about the environmental protection act and act upon it. • Promote climate-protecting public policies.

Suggested topics for SDG 13 “Climate Action”

Food waste on green house emissions

Conservation of biodiversity

Climate changeand global warming

Climate change-related hazards leading to disasters like drought, weather extremes, etc. and their unequal social and economic impact within households, communities and countries and between countries

Environmental pollution: types, causes, effects and prevention

Prevention, mitigation and adaptation strategies and their connections with disaster response and disaster risk reduction

Local, national and global institutions addressing issues of

climate change Local, national and global policy strategies to

protect the climate

Examples of learning approaches and methods for SDG 13 “Climate Action”

Demonstration of the adverse effects of climate change using visual aids like videos, films etc

Analyse different climate change scenarios concerning their assumptions, consequences and their preceding development paths

Develop and run a campaign related to climate protection

Awareness programs and campaigns to reduce plastic waste and its

impact on climate change

Develop a study case about how climate change could increase the risk of disasters in a local community

Develop an enquiry-based project investigating the statement “Those who caused the most damage to the atmosphere should pay for it”

SDG 14 - Life below Water

Conserve and sustainably use the oceans, seas and marine resources for sustainable development

Teaching & Learning objectives for SDG 14 "Life below Water"

Subject/ topic/ course in regular curriculum relating to SDG 14	• Food and Nutrition Security, Environmental studies, Food Toxicology
Cognitive Teaching & learning objectives	**At the end of 1st & 2nd year learner should be able to** • Understand the importance of marine sources for the nourishment of society in a sustainable way. • Understand the sustainable use of marine resources • Understand the interconnection between the community and the marine life • Know the causes of marine pollution • Understand the importance to preserve the marine life for the sustainable living • Know the marine conservation act • Understand the notion of veganism and Carnitarians • Understand harmful algal bloom (HAB)
Socio-emotional Teaching & learning objectives	**At the end of th 3rd and 4th year learner should be able to** • Educate public on the protection of marine resources • Create awareness on the ways to reduce marine pollution • Create awareness on the marine conservation act • Help people reflect on their own dietary needs and question whether their dietary habits make sustainable use of limited resources of seafood.
Behavioural Teaching & learning objectives	**At the end of the course learner should be able to** • Bring about a change at the individual as well as at the community level and help in reducing the activities that pollute the marine system. • Bring about a change in sustainable consumption of marine foods

Suggested topics for SDG 14 "Life below Water"

Acquatic eco system

Endangered and endemic species of India

Water pollution

Ocean pollutants: plastics, microbeads, sewage, nutrients

and chemicals

Management and use of marine resources (renewables and non-renewables)

Marine ecology – the food web, predators and prey, competition, collapse

Sea level rise and countries that will experience total or partial loss of land; climate refugees and what a loss of sovereignty will mean

The oceans and international law

Examples of learning approaches and methods for SDG 14 "Life below Water"

Develop and run a (youth) campaign related to

Demonstrate the activities of save ocean campaign

Group discussion and brain stroming sessions on

UNDP act to save ocean and ocean innovation

challenge

excursions to coastal sites

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	• Food Packaging & Informatics, Food and Nutrition Security, Environmental studies.
Cognitive Teaching & learning objectives	**At the end of 1st year:= earner should be able to** • Understand the energy flow in the eco system • Understand the importance of urbanization and globalization without affecting the eco-system • Understand the importance of green space in the local community • Understand the difference between renewable and non-renewable energy system **At the end of 2nd year earner should be able to** • Understand the impact of chemicals and pesticides on the soil pollution, • Understand the consequences of air, soil and water pollution on the living beings • Understand the consequences arising as a result of the exploitation of natural resources.
Socio-emotional Teaching & learning objectives	**At the end of the 3rd &4th year earner should be able to** • Create awareness of the effect of deforestation and desertification • Encourage the community to plant more trees • Tie up with any of the local agencies or non-governmental organizations and educate the community • The learner can help prevent the exploitation of natural resources by educating them on the consequences • The learner can create a vision of a life in harmony with nature.
Behavioural Teaching & learning objectives	**At the end of the course earner should be able to** • Connect with local groups and working toward biodiversity conservation in their area. • Bring about a change in the community by increasing the green space and keeping the community pollution free • Help community on the proper usage of pesticides and chemicals for food production • Campaign and work for the implementation and development of CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) regulations.

Suggested topics for SDG 15 "Life on Land"

energy flow through food webs, dispersal and ranges. Specific ecosystems

Threats to biodiversity: habitat loss, deforestation, and overexploitation

The dangers of extinction: Individually endangered species, how extinction is forever, the long time needed to form species, and the six mass extinctions

Restoration of wildlife and seeing humans as a healing force

Climate change and biodiversity, ecosystems as carbon sinks, disaster risk reduction and ecosystems (ecosystems as a natural barrier to natural hazards)

Land erosion, land slides and land encroachment

Desertification, deforestation and efforts to combat

themThe human's connection with nature – the

natural self

Examples of learning approaches and methods for SDG 15 "Life on Land"

Celebrate Earth Day and/or World Environment Day to insist importance on the preservation and

conservation

Involve in community work to plant trees and increase the green space

Encourage to establish kitchen garden

Take an excursion to a nearby parkland for cultural purposes, e.g. recreation, meditation, art

Plant a wildlife garden for wild animals, e.g. bee-friendly flowers, insect hotels, ponds, etc. in urban areas

Develop an enquiry-based project: "Why is biodiversity important?"

SDG16-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 5	• AECC 02: Indian Constitution, DSC 09: Public Health & Community Nutrition
Cognitive Teaching &learning objectives	**At the end of 1st & 2nd year earner should be able to** • Understand the importance of food and health for all towards reducing gender inequality. • Knows the opportunities and benefits provided by full gender equality and capacity development among women.
Socio-emotional Teaching &learning objectives	**At the end of 3rd 7 4th year learner should be able to** • Understand about fundamental rights, duties and directive principles of constitution • Identify and speak up against all forms of gender discrimination and debate the benefits of full empowerment of all genders. • Reflect on their own gender identity and gender roles.
Behavioural Teaching &learning objectives	**At the end of the program earner should be able to** • Take the measure of their surroundings to empower themselves. • Evaluate, participate disseminate the information of gender equality importance • Support others in developing empathy across genders and breaking down gender discrimination and violence.

SuggestedtopicsforSDG16“Peace,JusticeandStrongInstitutions”
Definitionsofjustice:retributive andrehabilitative
Crime andpunishment,comparing lawsandpunishments
acrosstheglobeClimateJustice
TradeJustice
Child labour and exploitation of children
Global treaties and agreements related to war, peace and
refugeesCorruption andhowtomeasureit

ExamplesoflearningapproachesandmethodsforSDG16“Peace,JusticeandStrongInstitutions”
Perform a role-play about different people from around the world who are victims of
injusticeHaveinterfaithdialoguesinschoolsandcollegecampusesaboutjusticeandequalityOrg
anizeanexcursion toalocal courtorpolice station
Designaposter“Whatisfair/just”atschool
Debateissues of justice ofhistorical and cultural context,e.g.the disappearedin Argentina,Apartheid inSouth Africa,etc.andhowthesejusticeissueshavedeveloped
Celebrate theInternationalDay ofPeace (September21)
Develop anenquiry-based project:“What woulda peacefulworldlook like?”

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	• Food Packaging and food informatics, Food processing & technology, Public Health and Community Nutrition, Food and Nutrition Security, Food Nanotechnology, Food Packaging and Food Informatics, Professional & Societal Communication
Cognitive Teaching & learning objectives	**At the end of 1st & 2nd year learner should be able to** • Provide quality education opportunities are provided for the learners to participate in national and international workshops, conferences, and seminars. • Widen their intellectual capacity the learners are permitted to do internship in reputed research institutes like CFTRI & DFRL by having a memorandum of understanding. • Understand the significance of food and nutrition security • Understand and analyzes the global policies in relation to Food Nutrition & Dietetics. • State-of-the-art technologies and tools to be in par with the global technologies and tools in the field of nutrition
Socio-emotional Teaching & learning objectives	**At the end of the 3rd & 4th year learner should be able to** • Developed research skills & learners will be able to innovate and involve in translational research thereby finding solutions for the community problems which directly connects to sustainable development goals. • Educate people on the food and nutrition security and help them make informed choices • Raise awareness about the importance of global partnerships for sustainable development. • Implement the knowledge to build the sustainable communities • Experience a sense of belonging to a common humanity, sharing values and responsibilities, based on human rights.
Behavioral Teaching & learning objectives	**At the end of the course year learner should be able to** • Become a change agent to realize the SDGs and to take on their role as an active, critical and global and sustainability citizen. • Analyze global policies and take up efforts to implement changes in the local community to work in par with the global policies • Contribute to facilitating and implementing local, national and global partnerships for sustainable development. • Publicly demand and support the development of policies promoting

	global partnerships for sustainable development. • Influence companies to become part of global partnerships for sustainable development.

Suggested topics for SDG 17 "Partnerships for the Goals"

Local, national and global systems, structures and power dynamics

The prisoner's dilemma[11] and tragedy of the commons as challenges for creating global governance and markets promoting sustainable development

Global citizenship and citizens as change agents for sustainable development

Cooperation on and access to science, technology and innovation, and knowledge sharing

Global distribution of access to the internet

Development cooperation, development assistance, and additional financial resources for developing countries from multiple sources

Capacity-building to support national plans to implement all the SDGs

Measurements of progress on sustainable development

Examples of learning approaches and methods for SDG 17 "Partnerships forthe Goals"

Develop partnerships or global web-based distance education experiences between schools, universities or other institutions in different regions of the world

Advertisements on SDG and small steps to achieve SDG

Analyse the development and implementation of global policies on climate change, biodiversity, etc.

Analyse the progress in implementing the SDGs globally and at the national level, and determine who is accountable for progress or lack thereof

Plan and implement an SDGs awareness campaign

Plan and run a (youth) action project on the SDGs and their importance

Develop an enquiry-based project: "Together we can….Explore this commonly used phrase and how it applies to the SDGs"

CONCLUSIONS

Institution & individual can contribute to achieving the SDGs by developing cross-cutting sustainability competencies that are needed to deal with many different sustainability challenges and to relate the different SDGs to each other. Institution can equip learners with the specific cognitive, socio-emotional, and behavioral learning outcomes that enable them to deal with the challenges of each SD

All educational institutions must consider it their responsibility to deal intensively with sustainable development issues, to foster the development of sustainability competencies and to develop the specific learning outcomes related to all SDGs. Therefore, it is vital not only to include SDG-related contents in the curricula, but also to use action-oriented transformative pedagogy.

Education officials, policymakers, educators, curriculum developers and others are called upon to rethink education to contribute to the achievement of the SDGs within their timeframe, between now and 2030. This guidance provides an orientation to the sustainability competencies and specific cognitive, socio-emotional, and behavioral learning outcomes that are relevant to this goal, and it outlines what is needed to implement learning for the SDGs through Educational Institutions.

Implementation of the NEP 2020, is a part of multidisciplinary and holistic education. The current curriculum of undergraduate-NEP and post graduate of Nutrition & Dietetics contain the courses that make education well-rounded, useful and fulfilling, including health and nutrition, physical education, fitness, wellness, sports, fitness. sanitation and hygiene. We strongly recommend teachers to spend more time on activity based teaching and learning methods. 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.

Keyelementsforwhole-institutionapproaches

Aninstitution-wide processthatenables allstakeholders – leadership, teachers, learners, administration – to jointlydevelopavisionandplantoimplementESDinthewholeinstitution.

Technical and financial support to the institution to supportits reorientation, including for instance the provisionofrelevantgoodpracticeexamples,trainingforleadershipandadministration,thedevelopmentofguidelinesandassociatedresearch.

Inter-institutional networks that facilitate mutual supportsuch as peer-to-peerlearning ona whole-institutionapproach,andincreasethevisibilityoftheapproachtopromoteitasamodel foradaptation.

. Key methods for learning for the SDGs

Collaborative real-world projects, such as service-learning projects and campaigns for different SDGs

Vision-building exercises such as future workshops, scenario analyses, utopian/dystopian story-telling, science-fiction thinking, and forecasting and back casting

Analyses of complex systems through community-based research projects, case studies, stakeholder analysis, actors' analysis, modelling, systems games, etc.

Critical and reflective thinking through fish-bowl discussions, reflective journals, etc.

Learningobjectivesforteacherstopromote SDG

Know about sustainable development, the different SDGsand therelatedtopicsandchallenges

Understand the discourse on and the practice of inlocal, nationalandglobalcontext

Develop their ownintegrativeview ofthe issues andchallenges of sustainable developmentbyconsidering the social, ecological,economic and culturaldimensionsfrom the perspectiveof the principles andvalues ofsustainable development,including thatofintergenerational andglobaljustice

Take disciplinary, interdisciplinary and transdisciplinaryperspectives onissuesofglobalchange andtheirlocalmanifestations

Reflect onthe conceptof sustainabledevelopment, thechallengesinachievingtheSGDs,theimportanceoftheirown fieldof expertisefor achievingthe SDGsand theirownrole inthisprocess

Understand how cultural diversity, gender equality,socialjustice,environmentalprotectionandpersonal development are integral elements of ESD and how to makethem apartofeducationalprocesses

Practice an action-oriented transformative pedagogy thatengages learners in participative, systemic, creative andinnovative thinking and acting processes in the context oflocal communitiesandlearners' dailylives

Actas a changeagent in aprocess of organizationallearning that advances their school towards sustainabledevelopment

Identify local learning opportunities related to sustainabledevelopment and buildcooperative relationships

Evaluate and assessthe learners' developmentofcross-cutting sustainability competencies and specificsustainability-relatedlearningoutcomes

REFERENCES

1. Lanham SA, Stear SJ, Shirreffs SM, Collins AL, (2011), Sports and Exercise Nutrition, A John Wiley & Sons, Ltd., Publication.
2. Winter EM,. Jone AM, Davison RCR, Bromley PD and Mercer TH, (2006), Sports and Exercise Physiology Testing -guidelines, The British Association of Sport and Exercise Sciences Guide Volume II: Exercise and Clinical Testing.
3. McGinnis PM, (2013), Biomechanics of Sport and Exercise, 3rd edition, Human Kinetics publishers. A&U Academic
4. Understanding Normal and Clinical Nutrition, Eighth Edition, Sharon Rady Rolfes, Kathryn Pinna, Ellie Whitney. Wadsworth, Cengage Learning2009.
5. Advanced Nutrition and Human Metabolism, Sareen S. Gropper, Jack L. Smith, James L. Groff. , 2009.
6. Nutrigenomics and Nutrigenetics in Functional Foods and Personalized Nutrition Lynnette R. Ferguson, 2013, CRC Press.
7. Financial Management Text, Problems and Cases, M Y Khan and P K Jain,(7th Edition) Mc Graw Hill Education
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
13. UNESCO and Sustainable Development Goals http://en.unesco.org/ sdgs
14. UN Sustainable Development / SDGs http://www.un.org/ sustainabledevelopment 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: Methodolgies 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
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- teachingand-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 VeerasimhasanaMahasamsthana Math, SutturSrikshethra, for centuries. This is also the philosophy for which the Mahaidyapeetha 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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