SGT UNIVERSITY

VALUE ADDED COURSES

Faculty of Allied Health Sciences 2023-24

INTRODUCTION

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In the dynamic and ever-changing global landscape, the need for lateral thinking, innovation, and entrepreneurial spirit has never been greater. Traditional educational approaches that focus solely on specific skill sets often become outdated due to the rapid pace of technological advancements. As such, no university curriculum can comprehensively address all areas of importance or relevance. To ensure that students are better equipped to meet industry demands, it is crucial for higher education institutions to supplement the core curriculum, helping students develop both their aptitudes and interests.

Objectives:

The primary objectives of the Value-Added Course (VAC) are:

1. To enhance industry understanding: Equip students with knowledge of industry expectations and requirements.
2. To improve employability: Enhance students' employability skills, making them more competitive in the job market.
3. To bridge skill gaps: Address existing gaps in skills and ensure students are industry ready.
4. To foster inter-disciplinary skills: Provide students with opportunities to develop diverse skills across various disciplines.
5. To encourage entrepreneurship: Inspire students to become job creators rather than just job seekers.

Course Design

Departments designing Value-Added Courses should begin by conducting a **Training Need Analysis** and engaging with industry experts, alumni, and employers to identify skill gaps and emerging trends. This will guide the creation of a syllabus tailored to current demands.

Conduction of Value-Added Courses

- Voluntary Participation: VAC is not a mandatory requirement for completing any academic program, and the credits earned through these courses are additional to the degree's total credit requirement.
- Learning Format: VAC is an instructor-supported learning course, available to all students without any additional fee. Classes are typically scheduled during reserved time slots, beyond regular class hours, and may also be conducted on weekends or during vacations.
- Course Registration: Students may register for only one Value-Added Course per semester, preferably offered by their own department. However, with prior permission from the Dean, they can take courses from other departments.

About the University

SGT University, established in 2013 and recognized by the University Grants Commission (UGC), has set its sights on fostering a culture of research, innovation, and interdisciplinary education. Nestled on a sprawling 70-acre campus on the outskirts of Gurgaon, the university boasts state-of-the-art resources and infrastructure designed to facilitate cutting-edge academic and research achievements.

Driven by a relentless pursuit of excellence, SGT University has earned the prestigious NAAC A+ accreditation, becoming one of the youngest institutions in the country to receive this honour. This recognition highlights the university's commitment to maintaining high standards in education and research.

Among its broad array of academic programs, the university offers premier medical courses through the SGT Medical College, Hospital & Research Institute, which are considered among the best in the nation. These programs are seamlessly integrated with practical training and research opportunities, ensuring that students receive a comprehensive, world-class education in the medical field.

Our Vision

To nurture individual's excellence through value based, cross-cultural, integrated and holistic education adopting the contemporary and advanced means blended with ethical values to contribute in building a peaceful and sustainable global civilization.

Our Mission

- To impart higher education at par with global standards that meets the changing needs of the society
- To provide access to quality education and to improve quality of life, both at individual and community levels with advancing knowledge in all fields through innovations and ethical research.
- To actively engage with and promote growth and welfare of the surrounding community
- through suitable extension and outreach activities
- To develop socially responsible citizens, fostering ethical values and compassion through participation in community engagement, extension and promotion activities.
- To create competitive and coordinated environment wherein the individual develops skills and a lifelong learning attitude to excel in their endeavours.

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- Minimum Participants: A minimum of 5 students must opt for a course for it to be offered.
- Industry and Expert Involvement: Eminent industry professionals or academicians may conduct VACs. This broadens students' exposure and enhances the learning experience.

Course Duration and Structure

- Duration: Each Value-Added Course should last at least 30 hours, with a balanced structure of 18 hours (60%) theory and 12 hours (40%) practical. The exact division of theory and practical hours will be determined by the course instructor with the approval of the Dean.
- Location: The courses will be conducted within the respective schools, with classrooms assigned by the Dean based on student numbers.

REGISTRATION PROCEDURE

1. Course Listings: A list of available Value-Added Courses, along with syllabi, will be posted on the university website.
2. Registration Process: Students must complete and submit a registration form to enroll in a course. The Department Head will group students based on their choices and send them to the Dean for final approval.
3. Attendance and Assessment Records: The course instructor is responsible for maintaining attendance and assessment records, including details on assignments, seminars, and other activities. These records must be signed by both the course instructor and the Department Head and kept for future reference.
4. Attendance Requirements: Students must maintain at least 75% attendance in the Value-Added Course to be eligible for a certificate. Up to a 10% relaxation in attendance may be granted for valid reasons, such as illness or extracurricular participation.

Certification

Upon successfully completing a Value-Added Course, students will be awarded a **certificate** signed by the authorized university signatories, recognizing their accomplishment in the course.

Microbes In Everyday Life

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Course Code: VAC/FAHS/001

COURSE OBJECTIVES:

- Understand concept of important microbes
- Comprehend the use of various microbes in day-to-day life
- Differentiate between beneficial and detrimental microbes
- Determine application and use of microbes in everyday life

COURSE OUTCOMES:

- Students will be able to define and describe different types of microbes (bacteria, fungi, viruses, protozoa, etc.).
- Students will be able to explain the role of microbes in the natural environment, including decomposition and nutrient cycling.

COURSE CONTENT:

Module I: Microbes in Human Health

- Introduction to microbial world
- Bacteria and human health
- Virus and human health
- Fungi and human health

Module II: Microbes in Food

- Introduction to important microbes associated with food
- Food spoilage microbes
- Food borne disease causing microbes
- Beneficial microbes in food

Module III: Microbes in Industry

- Introduction to Industrially important microbes
- Microbes used in fermentation
- Microbes in industrial products: enzymes, pharmaceuticals
- GM microorganisms

Module IV: Microbes in Environment

- Microbes present in air, water, soil
- Microbes in bioremediation
- Microbes in waste treatment

Nutrition & Wellness

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Course Code: VAC/FAHS/002

COURSE OBJECTIVES:

- To enable students with basic understanding of nutrition and wellness concepts.
- To acquaint students with the function and interaction of nutrients and the concept of management of diet to maintain optimal health and fitness.
- To enable the student to understand the relationship between nutrition, health and wellness.

COURSE OUTCOMES:

- Improved understanding of the role of different nutrients in the overall health and wellness of an individual.

COURSE CONTENT:

Module I: Basic Nutrition Principles

- Macronutrients and micronutrients: Functions, sources, requirement, deficiency/toxicity.
- Water: Sources, functions, requirement, deficiency/toxicity.
- Fiber: Types, functions, sources, requirement.

Module II: Balanced diet

- Balanced diet: Definition, food groups, food pyramid, my plate, dietary guidelines and dietary diversity.
- Meal planning: concepts, principles, advantages and factors affecting food planning, portion size, importance of breakfast, minimizing food wastage, Conserving and enhancing nutrients in foods.
- Nutrition profiling of packaged foods: Understanding of labelling, HFSS foods, Front-of-package (FOP).

Module III: Physical Activity

- Physical Activity: Definition, Types, benefits.
- Importance of physical activity and recommendations.
- Assessment of Fitness: BMI, Body fat, WHR.

Module IV: Weight Management

- Overweight and obesity: Etiology, health complications.
- Fad diets: Types.
- Weight management: Role of diet.

REFERENCES:

- Joshi S, Nutrition and Dietetics, Mc Graw Hill Publishers.
- Shashi G& Pooja G Food, nutrition & Health, S.Chand.
- Sumathi M & Rajgopal, Fundamentals of Foods, Nutrition and Diet Therapy, New Age International Publishers.
- Srilakshmi B, Exercise Physiology and Sports Nutrition, New Age International Publishers.
- Srilakshmi B, Dietetics, New Age International Publisher.

Bio Medical-Waste Management

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Course Code: VAC/FAHS/003

COURSE OBJECTIVES:

- To ensure that bio-medical waste is handled in accordance with Biomedical Waste Management Rules, 2016& Environment Protection Act and without any adverse effect to human health & environment.
- To ensure the occupational safety of all healthcare workers involved in the handling of bio-medical waste.

COURSE OUTCOMES:

- Describe the types of waste produced in healthcare settings.
- Identify appropriate personal protective equipment to handle regulated medical waste.
- Segregate regulated medical waste into non-infectious and infectious categories.
- Collect each category of waste in the proper container.

COURSE CONTENT:

Module I: Introduction and Classification of BMW

- Introduction to BMW
- Classification of Healthcare waste management
- Categories, colour coding and types of containers used for disposal
- Case study

Module II: Treatment and Disposal of BMW

- Method of segregation of BMW
- Treatment of BMW
- Management of E-waste and radioactive waste

Module III: Guidelines and handling of COVID-19 waste

- Handling COVID-19 BMW
- Revised Guidelines for Common Biomedical Waste management

Module IV: Hazardous effects of BMW

- Health hazards of healthcare waste
- Hazards from chemical and pharmaceutical waste
- Genotoxicity, cytotoxicity and radioactive hazards

REFERENCES:

- BMW 2023 guidelines
- Microbiology: Apurba Shankar Shastry 3rd Edition