SGT UNIVERSITY

VALUE ADDED COURSES

Faculty of Dental Sciences 2023-24

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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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.

- 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.

Dental Hygiene and OralHealth Care

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Course Code: VAC/FDSC/001

COURSE OBJECTIVES:

- To familiarize students with the fundamental concepts of dental hygiene, including its importance in overall health.
- To introduce students to the structure of teeth and oral cavities, along with common dental diseases.
- To equip students with the skills required for preventive oral health practices such as brushing, flossing, and dietary guidelines.
- To educate students on the prevention and management of common oral health issues like cavities, gum diseases, and bad breath.
- To enhance students' ability to communicate and educate others on the importance of oral hygiene and preventive care.
- To raise awareness about the relationship between oral health and systemic health conditions like heart disease, diabetes, and respiratory infections.

COURSE OUTCOMES:

- Demonstration of Basic Oral Hygiene Techniques
- Ability to Educate on Oral Health
- Improved Oral Health Knowledge
- Increased Awareness of Oral Health's Link to Overall Well-being
- Confidence in Oral Health Promotion
- Use of Oral Health Products
- Recognition of the Importance of Regular Professional Care

COURSE CONTENT:

Module I: Introduction to Dental Hygiene

- Overview of dental hygiene
- Role of dental hygienists in healthcare
- Basic anatomy of the teeth and mouth
- Importance of oral hygiene in overall health

Oral Hygiene Practices

- Proper brushing techniques (manual and electric toothbrushes)
- Flossing and interdental cleaning techniques
- Use of mouthwash and tongue scraping
- Importance of oral hygiene in overall health

Module II: Preventive Oral Health Care

- Role of regular dental check-ups
- Preventive treatments: fluoride, sealants, etc.
- Early detection of oral diseases

Diet and Oral Health

- The impact of diet on teeth: sugar, acids, and nutrition for healthy teeth
- Role of calcium, Vitamin D, and other nutrients in oral health

Module III: Oral Health and Systemic Health

- Connection between oral health and overall health (e.g., diabetes, heart
- disease)
- How poor oral hygiene can lead to systemic diseases.

Special Populations and Oral Hygiene

- Oral care for children, elderly, and pregnant women
- Special considerations for patients with medical conditions

Oral Disease Prevention

- Common oral diseases: cavities, gum disease, bad breath.
- Prevention strategies for each disease.

Module IV: Oral Health Education and Communication

- Teaching proper oral hygiene techniques.
- Communication strategies to improve patient compliance.
- Engaging patients and caregivers in oral health education.

Current Trends in Oral Hygiene

- Advances in dental technology (electric toothbrushes, smart devices)
- Innovations in oral care products (toothpaste, floss, mouth rinses)
- Tele-dentistry and digital tools for oral care
- The role of dental check-ups in preventing oral diseases.

Hands-on Skills: Basic Dental Hygiene Practices

- Demonstration and practice of tooth brushing techniques (manual and electric).
- Flossing techniques: Demonstration and hands-on practice.
- Understanding the importance of oral hygiene tools.
- Practicing the use of interdental brushes and other cleaning tools.

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Head and Neck Muscle Pain: Assessment and Management

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Course Code: VAC/FDSC/002

COURSE OBJECTIVES:

- To understand the anatomy and physiology of head and neck muscles.
- To recognize common causes and risk factors of head and neck muscle pain.
- To conduct detailed assessments for diagnosing head and neck muscle pain.
- To explore evidence-based management approaches for treating head and neck pain.
- To learn to design individualized rehabilitation programs tailored to head and neck disorders.
- To develop knowledge of different manual therapy techniques and modalities used in the management of muscle pain.

COURSE OUTCOMES:

- Identify and explain the anatomical structures and pathophysiological mechanisms behind head and neck muscle pain.
- Perform a thorough clinical assessment and differentiate various causes of head and neck muscle pain.
- Acquire practicalknowledge in evidence-based manual therapy, exercises, and therapeutic modalities for managing head and neck muscle pain.
- Create individualized treatment plans for rehabilitation and long-term management, using evidence-based strategies to manage both acute and chronic conditions.

COURSE CONTENT:

Module I: Anatomy and Pathophysiology of Head and Neck Muscles

- Musculoskeletal anatomy
- Pathophysiology of muscle pain

Module II: Assessment of Head and Neck Muscle Pain

- Comprehensive patient history and identifying pain pattern
- Clinical Examination:
- Special Tests

Module III: Evidence-Based Treatment Techniques for Head and Neck Pain

- Manual therapy
- Therapeutic exercise
- Modalities and modal techniques
- Ergonomics and posture correction

Module IV: Rehabilitation, Long-Term Management, and Case Studies

- Rehabilitation techniques
- Chronic pain management
- Case-based learning

References:

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- Weiner, R (2001). Musculoskeletal Pain: Assessment and Management. Taylor & Francis
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Prosthodontics and Restorative Dentistry

SGT UNIVERSITY

Course Code: VAC/FDSC/003

COURSE OBJECTIVES:

- To familiarize students with the principles and materials used in Prosthodontics.
- To introduce participants to different types of prosthetic devices and their applications.
- To teach effective techniques for designing and fabricating dental restorations and prostheses.
- To enhance skills in patient evaluation, treatment planning, and communication.
- To explore advancements in digital dentistry and minimally invasive restorative procedures.

COURSE OUTCOMES:

- Demonstrate an understanding of Prosthodontics and its role in comprehensive dental care.
- Apply practical skills in creating and placing dental prostheses.
- Educate patients on the maintenance and care of dental restorations.
- Understand the implications of prosthetic treatments on oral and systemic health.
- Stay updatedon modern materials, techniques, and technologies in Prosthodontics.

COURSE CONTENT:

Module I: Fundamentals of Prosthodontics

- Anatomy of teeth and oral structures.
- Principles of tooth restoration.
- Introduction to Prosthodontics and its scope in dentistry.
- Fixed prostheses: crowns, bridges, and implants.
- Removable prostheses: partial and complete dentures.
- Overdentures and maxillofacial prostheses.

Module II: Diagnosis, Planning,and Fabrication

- Evaluation of oral health and occlusion.
- Diagnostic tools (X-rays, 3D imaging).
- Case planning and designing prosthetic devices.
- Overview of dental materials (ceramics, composites, metals).
- Fabrication steps: Impressions, casts, and design.
- Lab work flowsand quality control.

Module III: Advanced Prosthodontic Applications

- Principles of dental implantology.
- Implant-supported prostheses: indications and techniques.

- Maintenance and troubleshooting.
- Smile design and aesthetic considerations.
- Restoring occlusal function and balance.
- Managing complex cases (edentulism, trauma,etc.).

Module IV: Innovations and Patient Care

Emerging Trends in Prosthodontics

- Digital dentistry (CAD/CAM, 3D printing).
- Regenerative materials and minimally invasivetechniques.
- Advances in biocompatible prostheses.
- Strategies for patient education and motivation.
- Post-treatment care and maintenance.
- Managing patient expectations and satisfaction.
- Active participation in all sessions.
- Successful completion of assessments and practical demonstrations.
- Submission of a final case study or reflection paper.

Module III: Individualized Learning Support

(Developing Individualized Learning Plans (ILPs)

- Assessment and goal setting
- Collaborative planning with stakeholders
- Monitoring and evaluation techniques
- Documentation and reporting
- Scaffolding techniques
- Assistive learning approaches

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