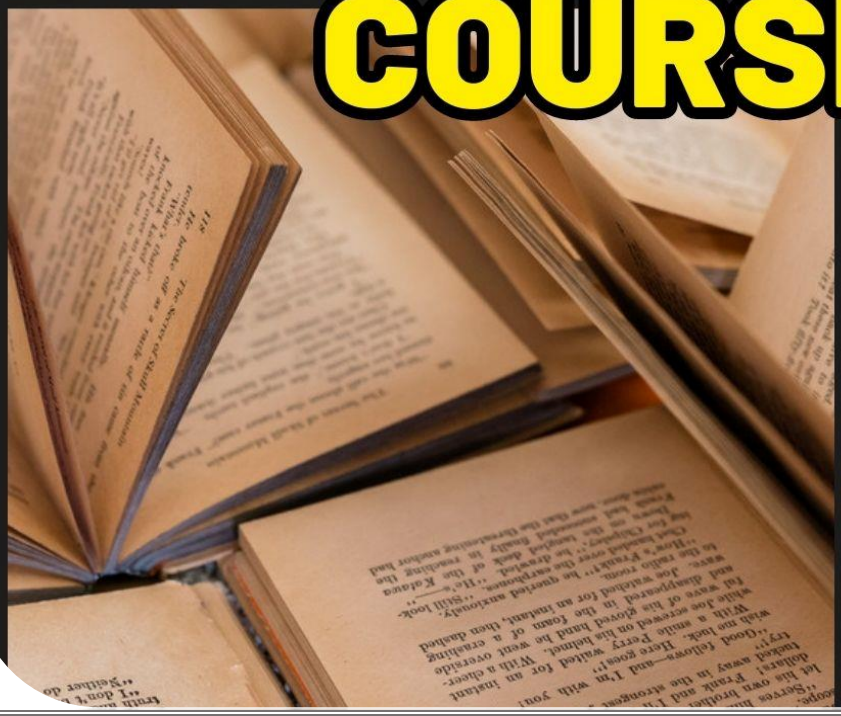
SHRI GURU RAM RAI UNIVERSITY
DEHRADUN

VALUE ADDED COURSES



SGRRU

SHRI GURU RAM RAI UNIVERSITY
Quest for Excellence

SGRR UNIVERSITY

Brochure of Value-Added Courses
College of Pharmaceutical Sciences
2018-19

ABOUT THE UNIVERSITY

Shri Guru Ram Rai University was established by a religious and philanthropic leader, Shri Mahant Devendra Dass Ji Maharaj in the year 2017. It is situated in the heart of city, Uttarakhand. We are extremely privileged to extend the values and ethos of the Shri Guru Ram Rai Education mission through SGRR University to impart quality education and in successfully placing more than 80% students in various companies across the globe. SGRR University has humongous campus spread over 80 acres of land. Its state-of-art facilities give opportunities to develop leadership skills and to achieve professional excellence. It has 3500+ students from different countries, 29 states and Union Territories and providing cultural melange and global exposure to our students. One of the biggest boosts from university is its unmatched experience in delivering quality education that helps to develop confidence and will give you more knowledge, industry exposure, building good networking and high self-esteem. This will change your overall personality and develop you into a complete professional to face any challenge.

Index

S.No	Course Name	Course Code	Contact Hours	Year	Page No.
1	Introduction	-	-	-	4-5
2	Good Clinical Laboratory Practice	VAC2018-20	30 Hours	2018	6-7
3	Impurities in Pharmacological Drugs	VAC2018-21	33 Hours	2018	8-9
4	Multipurpose Health Worker	VAC2018-22	36 Hours	2018	10-11
5	Nutraceuticals	VAC2018-23	30 Hours	2018	12-13

INTRODUCTION

Traditional education provides a strong foundation, but to stay competitive and relevant, individuals must continually enhance their skill set. Enter value-added courses, a gateway to a world of specialized expertise designed to complement and enrich existing knowledge.

Value-added courses go beyond the conventional academic curriculum, offering practical insights and hands-on experience in niche areas. These courses are meticulously crafted to bridge the gap between theoretical learning and real-world application, empowering individuals to navigate the complexities of contemporary professional landscapes.

Conduction of value added courses :

Value Added Course is not mandatory to qualify for any programme and the credits earned through the Value-Added Courses shall be over and above the total credit requirement prescribed in the curriculum for the award of the degree. It is a teacher assisted learning course open to all students without any additional fee.

Classes for a VAC are conducted during the RESERVED Time Slot in a week or beyond the regular class hours The value-added courses may be also conducted during weekends / vacation period. A student will be permitted to register only one Value Added Course in a Semester.

student will be encouraged to opt for the VAC offered by his/her parent Department/Faculty. Industry Experts / Eminent Academicians from other Institutes are eligible to offer the value-added course. The course can be offered only if there are at least 5 students opting for it. The students may be allowed to take value added courses offered by other departments after obtaining permission from Dean offering the course. The duration of value added course is 30 hours with a combination 18 hours (60%) of theory and 12 hours (40%) of practical. However, the combination of theory and practical shall be decided by the course teacher with the approval of the Dean

Guidelines for conducting value added courses

- Value Added Course is not mandatory to qualify for any program.
- It is a instructor supported learning course open to all students without any added fee.
- Classes for VAC will be conducted during the **RESERVED** Time Slot in a week or beyond the regular class hours.
- The value-added courses may be also conducted during weekends / vacation period.
- A student will be permitted to register only one Value Added Course in a Semester.

- ❖ Students may be permitted to enrol in value-added courses offered by other departments/ Schools after obtaining permission from the Department's Head offering the course.

Duration and venue

- ❖ The duration of value-added course should not be less than 30 hours.
- ❖ The Dean of the respective School shall provide class room/s based on the number of students/batches.
- ❖ VAC shall be conducted in the respective School itself.

Registration procedure

The list of Value-Added Courses, along with the syllabus, will be available on the University Website. A student must register for a Value-Added Course offered during the semester by completing and submitting the registration form. The Department Head shall segregate according to the option chosen and send it to the Dean of the school offering the specific Value-Added Courses.

- Each faculty member in charge of a course is responsible for maintaining Attendance and Assessment Records for candidates who have registered for the course.
- The Record must include information about the students' attendance and Assignments, seminars, and other activities that were carried out.

- The record shall be signed by the Course Instructor and the Head of the Department at the end of the semester and kept in safe custody for future verification.

- Each student must have a minimum of 75% attendance in all courses for the semester in order to be eligible to take certificate.

- Attendance requirements may be relaxed by up to 10% for valid reasons such as illness, representing the University in extracurricular activities, and participation in NCC.

- The students who have successfully completed the Value Added Course shall be issued with a Certificate duly signed by the Authorized signatories.

Good Clinical Laboratory Practice

Course Code: VAC2018-20

Course Objectives-

It is designed to equip participants with a thorough understanding of the regulatory frameworks, quality management systems, and ethical considerations essential for maintaining the reliability and integrity of clinical laboratory data in the context of clinical trials. Participants will delve into the intricacies of regulatory compliance, gaining insight into national and international guidelines governing laboratory practices. The course aims to elucidate the principles of Quality Management Systems, emphasizing the importance of meticulous documentation, accurate record-keeping and effective communication among laboratory personnel. Key objectives include imparting knowledge on sample management, analytical method validation, and the implementation of robust quality control procedures. Participants will also gain proficiency in instrument calibration, equipment management, and risk assessment to ensure the precision and accuracy of laboratory results

Course Outcomes- After this course, participants will be able to-

- Regulatory Compliance and Ethical Practices
- Implementation of Quality Management Systems (QMS)
- Effective Documentation and Record-Keeping
- Proficiency in Laboratory Testing Procedures and Risk Management

Course Content-

Module 1- Introduction to GCLP and Regulatory Frameworks- Overview of Clinical Laboratory Practices, Regulatory Guidelines and Compliance, Ethics and Professional Conduct

Module 2- Quality Management Systems in Clinical Laboratories- Introduction to Quality Management, Components of a Quality Management System (QMS), Roles and Responsibilities in QMS.

Module 3- Laboratory Documentation and Record-Keeping- Importance of Documentation, Record-Keeping Procedures

Module 4- Laboratory Testing Procedures and Method Validation- Sample Management, Analytical Method Validation, Quality Control Procedures,

Module 5- Instrumentation, Equipment Management, and Risk Assessment- Instrumentation and Equipment, Risk Management, Final Assessment and Certification

Recommended Books-

- Good Clinical Laboratory Practice: A Quality Management System Approach" by Lorne M. Golub and Lawrence J. Nelson.
- Good Laboratory Practice Regulations" by Sandy Weinberg.
- Laboratory Quality Management: A Roadmap" by D. Van Westen.
- Handbook of Good Clinical Research Practice" by A. John Camm and James T. H. Teo.

Impurities in Pharmacological Drugs

Course Code: VAC2018-21

Course Objectives- It provides participants with a comprehensive understanding of the various types of impurities that can be present in pharmacological drugs and their potential impact on safety and efficacy. Throughout the course, participants will explore the principles of impurity profiling, analytical methods for detection and quantification, and strategies for managing impurities in the pharmaceutical development process. The primary objectives of the course include familiarizing participants with the regulatory requirements related to impurity control, both at the national and international levels. Participants will gain knowledge about the different classes of impurities, such as process-related, drug-related, and degradation products, and the potential risks associated with their presence in pharmaceutical formulations.

Course Outcomes- After this course, participants will be able to-

- Knowledge and understanding of different types of impurities
- Application and Analysis of chromatography, spectroscopy, and mass spectrometry for the detection and quantification of impurities in pharmaceutical drugs.
- Synthesis and Evaluation of impurity control throughout the drug development lifecycle.
- Application of Professional Skills and Ethical Considerations on impurity control.

Course Content-

Module 1- Introduction to Impurities in Pharmacological Drugs- Overview of Drug Impurities, Regulatory Framework, Impact of Impurities on Drug Safety and Efficacy.

Module 2- Types and Sources of Impurities- Process-Related Impurities, Drug-Related Impurities, Degradation Products.

Module 3- Analytical Techniques for Impurity Detection and Quantification- Chromatographic Methods, Spectroscopic Techniques.

Module 4- Laboratory Testing Procedures and Method Validation- Strategies for Impurity Minimization- Raw Material Selection, Process Optimization, Stability Testing

Module 5- Case Studies and Regulatory Compliance- Case Studies on Impurity Management, Good Manufacturing Practices (GMP) and Quality Assurance, Final Assessment and Certification

Recommended Books-

- "Impurities Evaluation of Pharmaceuticals" by Satinder Ahuja and Karen Mills Alsante.
- "Identification and Quantification of Impurities in Drugs" by Satinder Ahuja and Nelu Grinberg.
- "Pharmaceutical Impurities: Insights from Regulatory and Industrial Experience" by Raman Sharma and Sumit Kumar.
- "Handbook of Isolation and Characterization of Impurities in Pharmaceuticals" by Satyajit Sarker and Zahid Latif.

Multipurpose Health Worker

Course Code: VAC2018-22

Course Objectives- The course for a Multipurpose Health Worker is designed to equip individuals with a diverse skill set to address a range of healthcare needs within communities. The primary objectives of the course include providing participants with a comprehensive understanding of public health principles, preventive healthcare measures, and basic medical interventions. Participants will learn to assess community health needs, implement health promotion strategies, and effectively communicate with diverse populations. The course aims to develop practical skills in health education, disease prevention, and health promotion, enabling Multipurpose Health Workers to engage with individuals and communities to enhance overall well-being. Participants will also receive training in basic clinical procedures, such as first aid and emergency response, ensuring they are well-prepared to handle common health issues in various settings.

Course Outcomes- After this course, participants will be able to-

- Define and articulate the roles and responsibilities of a Multipurpose Health Worker
- Apply community health assessment methods to identify health needs and plan appropriate interventions.
- Develop comprehensive health promotion and education programs tailored to the needs of specific communities.

Course Content-

Module 1- Introduction to Public Health and Community Medicine- Overview of Public Health, Roles and Responsibilities of Multipurpose Health Workers, Public Health Principles,

Module 2- Community Health Assessment and Planning- Community Health Needs Assessment, Health Promotion and Education Strategies, Cultural Competence in Community Health

Module 3- Preventive Healthcare Measures- Immunization and Vaccination Programs, Maternal and Child Health, Vector Control and Environmental Health

Module 4- Basic Clinical Procedures and Emergency Response- First Aid and Emergency Care, Common Health Issues and Minor Ailments, Infection Control and Hygiene Practices

Module 5- Community Engagement and Health Advocacy- Community Participation in Healthcare, Social Determinants of Health, Professional Development and Continuing Education

Recommended Books-

- "Community Health and Wellness: Primary Health Care in Practice" by Anne McMurray and Jill Clendon
- "Oxford Handbook of Public Health Practice" by Charles Guest, Walter Ricciardi, Ichiro Kawachi, and Iain Lang
- "Foundations for Health Promotion" by Jennie Naidoo and Jane Wills
- "Community as Partner: Theory and Practice in Nursing" by Elizabeth T. Anderson and Judith McFarlane

Nutraceuticals

Course Code: VAC2018-23

Course Objectives- The course on Nutraceuticals aims to provide participants with a comprehensive understanding of the science, regulatory aspects, and practical applications of Nutraceuticals in promoting health and well-being. Throughout the course, participants will be introduced to the following key objectives: Firstly, the course aims to impart a solid foundation in the science behind Nutraceuticals, covering the bioactive compounds found in various foods and their physiological effects on the human body. Secondly, the course will focus on the regulatory landscape governing Nutraceuticals, both at national and international levels. Thirdly, participants will develop practical skills in the formulation and development of Nutraceuticals products additionally; the course aims to educate participants on the role of Nutraceuticals in preventing and managing chronic diseases, such as cardiovascular diseases, diabetes, and obesity

Course Outcomes- After this course, participants will be able to-

- Define and explain the concept of nutraceuticals,
- Apply knowledge of Nutraceuticals classification to analyze and categorize specific bioactive compounds found in different foods.
- Synthesize information on the role of nutraceuticals in preventing and managing chronic diseases, proposing evidence-based interventions
- Apply ethical principles in the development, marketing, of Nutraceuticals**.**

Course Content-

Module 1- Introduction to Nutraceuticals- Definition and Scope, Classification of Nutraceuticals, Bioavailability and Mechanisms of Action.

Module 2- Regulatory Aspects of Nutraceuticals- National and International Regulations, Claims and Advertising, Quality Assurance and Standardization

Module 3- Formulation and Product Development- Extraction and Processing Techniques, Nutraceuticals Delivery Systems, Stability and Shelf Life

Module 4- Nutraceuticals and Health- Role in Disease Prevention, Integrative Approaches to Health, Personalized Nutrition

Module 5- Emerging Trends and Future Directions- Current Trends in Nutraceutical Research, Innovations in Nutraceuticals Technology, Ethical Considerations and Future Challenges

Recommended Books-

- "Bioactive Nutraceuticals and Dietary Supplements in Neurological and Brain Disease" by Ronald Ross Watson and Victor R. Preedy.
- "Functional Foods, Nutraceuticals, and Degenerative Disease Prevention" by Grzegorz Bartosz
- "Bioactive Compounds in Foods" by John Gilbert and Hamide Şenyuv
- "Nutraceuticals: Efficacy, Safety, and Toxicity" by Ramesh C. Gupta