# Curricula developed and implemented have relevance to the local, national, regional and global developmental needs



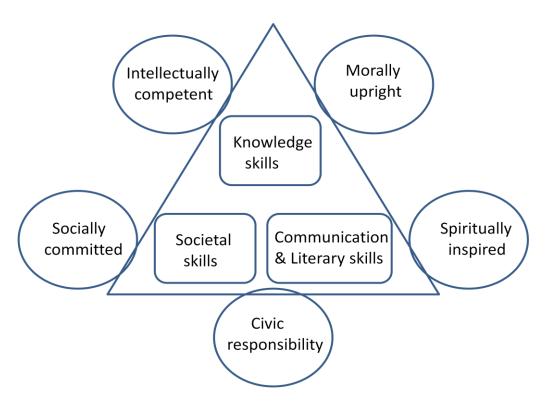
# Maharaja Ganga Singh University

A State University of Higher Education for Dignity and Self-Reliance Approved by UGC under Section 12B of the UGC Act 1956

NH 15, Jaisalmer Road, Bikaner-334004 (Raj.) India

https://mgsubikaner.ac.in/

# **Program outcomes (Common for all Programs)**



The Program Outcomes of our university consists in molding students so as to possess the following attributes.

#### **❖** Program: M.Sc. Computer Science

#### **Program and Program Specific Outcomes**

- To create understanding about the basics of computer science
- To impart knowledge on the origin and history of computer science
- To make the students realize the importance of computer science in the day to day life
- To make the students understand the specific applications of computer science in various disciplines

- To equip the students with problem solving skills using the programming languages
- To familiarize students with basics of computer hardware and how software interacts with computer hardware
- To create understanding about how computers represent and manipulate data, computer arithmetic and conversion between different number systems
- To introduce to the basics of Instruction Set Architecture (ISA).
- To teach students how to implement basic data structures like stacks, queues, linked lists, trees and graphs
- To introduce to core concepts of computer graphics

- To teach students the algorithms to design and create computer graphics scenes
- To teach about how to connect machines in a network
- To describe software engineering layered technology and process framework
- To teach the role of a database management system, basic database concepts, including the structure and operation of the relational data model

# **Program: M.Sc. Cyber Security**

# **Program Specific Outcomes**

- To teach about the basics of cyber security
- To impart knowledge on the origin and history of cyber security
- To explain to students the importance of cyber security in day to day life
- To make the students understand the specific applications of cyber security in various disciplines

#### **Course Outcomes**

- To create the Mathematical Foundation for Cyber Security
- To acquaint with Cyber Laws and Security Policies and Intellectual Property Rights
- To teach the theoretical and practical aspects of Java
- To perform the Software Vulnerability Analysis and detection of Security Threats and Web Security
- To explain Python, Intrusion Detection and Prevention Systems, Information Storage Management, Information Systems Audit, and Network and Wireless Security
- To learn about Cyber Crime Investigations, Digital Forensics, Digital Watermarking and Steganography

#### **Program: M.A. English**

#### **Program and Program Specific Outcomes**

- To understand the literary trends from Middle Ages to the present times.
- To understand the grammatical trends so as to enable the students understand the role of linguistics in communication skills
- To acquire translation skills (from native to target and vice versa)
- To acquaint the students with the Indian cultural trends by equipping with Indian ethics as enshrined in Indian epics
- To acquaint the students with varieties of English
- To acquaint the students with Indian English Literature in particular and with other English literatures

- To study the development of different poetic genres (long narrative, lyric, epic) as a means of articulating personal, cultural and political concerns.
- To understand the foundation principles of Western and Eastern (especially Indian) philosophy and aesthetic theory.
- To understand the way in which theatres become an instrument of analysis and criticism.
- To understand the aesthetics and politics of Renaissance
- To understand the aesthetics, philosophy and politics of eighteenth and nineteenth-century Romanticism in Western Europe
- To understand the foundational Principles of European Comedy from the Renaissance to the Twentieth Century.

- To understand the cultural trends that influence the emergence of Indian and Western English literatures
- To learn to translate the Nation

#### \* M. Phil. English

#### **Program Specific Outcomes**

- To provide a structured model for seminar based discussion and research
- To develop academic writing skills and research, including archival work, editing and translation
- To strengthen Research Methodology
- To enable students to develop areas of specialization, while taking forward a broad range of scholarly interests

#### **Course Outcomes**

- To understand themes and concerns (common to literary and visual texts) that shape contemporary India
- To attempt a synoptic study of the various genres in a comparative framework, beginning with their emergence as a popular form/form for a mass audience in the 19<sup>th</sup> and 20<sup>th</sup> centuries
- To address the questions of form, genre, translation contexts of production and publication

#### Ph.D. English

#### **Program Specific Outcomes**

- To take forward research projects leading to a doctoral degree
- To make a significant contribution to disciplinary knowledge
- To develop skills in translation, editing and archival work.

#### **❖** Program: M.Sc. Environmental Science

#### **Program Specific Outcomes**

- To impart knowledge about various topics related to Environmental Science
- To create understanding about various Environmental issues, their origins, causes and perspective solutions
- To train in various methods and techniques in Environmental Science for carrying out the experimental and research works
- To acquaint with the Environmental Laws, regulations, their implementation and consequences of their breach
- To create public awareness about various issues directly or indirectly affected by anthropological activities

- To introduce the basics of Environmental Science and anatomy and functions of different components of the Environment
- To inculcate the scientific view of the problems confronting our present day Environment
- To assess the serious issues in Environmental Science in Indian and global perspective
- To provide adequate insights on management of natural resources
- To give training in tools and techniques used for environmental economics and audits

- To equip the students with different methods used for data collection and analysis for Environmental investigations
- To introduce the students to the components of Environmental impact assessment
- To examine the critical linkages between environmental pollution and human health
- To understand the importance of Environmental policies, law and governance
- To develop an objective view of the nature of Earth's resources, particularly the non-renewable resources

#### \* Program: M. Phil. Environmental Science

#### **Program Specific Outcomes**

- To develop a research aptitude for Environmental Science through design and execution of the experimental work, analysis of the data/research outcomes and presentation of the results
- To develop academic writing skills, including research reviews, research papers, case studies, project proposals and dissertation/thesis
- To offer a sound basis in Research Methodology
- To enable candidates to develop areas of specialization, while taking forward a broad range of scholarly interests

#### **Course Outcomes**

- To acquaint the students with the basics and essentials of Research Methodology
- To acquaint the students with the recent trends in Environmental Research
- To acquaint the students with the Environmental and Ecological issues

## **❖** Program : Ph. D. Environmental Science

#### **Program Specific Outcomes**

- To enable the students carry out Research in discipline specific or interdisciplinary topics, leading to a doctoral degree
- To make a significant contribution to the creation of new insights in the subject
- To suggest areas of innovations and discoveries.

#### **❖** Program: M.A./M.Sc. Geography

#### **Program Specific Outcomes**

- To enable students acquire a comprehensive and thorough knowledge of the physical features of earth and of human activity
- The program focuses on Social Science aspects of the subject.

#### **Course Outcomes**

- To teach the students about the Evolution of Geographical Thought
- To teach the students about Structural & Dynamic Geomorphology
- To elaborate the Principles & Theory of Economic Geography
- To acquaint the students with the Geography of Environment
- To give an overview on Urban Geography, Regional Planning & Development, Cultural Geography and Geography of Tourism

#### **B.A./B.Sc.** Geography

#### **Program Specific Outcomes**

• To give the students fundamental knowledge about various sub-disciplines of the Geography

• The program focuses on educating the students on Geographical aspects at the regional, state and national levels

#### **Course outcomes**

- To teach the students about the Physical Geography
- To give students a comprehensive view of the Resources and Environment
- To elaborate Human Geography
- To acquaint the students with the Geography of the region, state and the nation

# **❖** Program: M.A. History

#### **Program Specific Outcomes**

- To provide basic knowledge about the advent of human civilization and importance of History is a subject in human life
- To provide an overview of the past happenings and experiences of human civilization
- To create a historical knowledge base to understand the ups and downs in political, cultural and socio-economic status of the nation.

#### **Course outcomes**

- To provide an insight and overview of the historical events of the twentieth century world
- To impart knowledge of the cultural profile of India
- To describe the role of women in Indian history
- To impart knowledge about the social and economic history of Rajasthan
- To impart with an in-depth knowledge of history of India
- To impart information about the socio economic life and institutions of ancient India
- To endow with the elements of Indian Archaeology and Epigraphy
- To illustrate about the Indian Art and Architecture
- To provide a detailed knowledge about medieval India and its institutions
- To describe about medieval society, religion, art and architecture
- Introduction to museum studies, rich cultural heritage of the country, region specific historical studies
- Practical knowledge and field training through excavation and exploration.
- Genealogical studies encourages the case study based on communities that connects one to its roots.

#### ❖ Program: M.A. in Archaeology

#### **Program Specific Outcomes**

- To study human activity through the recovery and analysis of material culture.
- To understand the cultural history for reconstructing past lifeways to document and explain changes in human societies through time

#### **Course Outcomes**

- To understand the Principles of Archeology
- To elaborate Museums and Museology
- To understand the Proto-History of India
- To teach the Archaeology of Rajasthan

#### **❖** Program: M.A. in Museology

#### **Program Specific Outcomes**

• To explore the history of museums and their role in society, as well as the activities they engage in, including curating, preservation, public programming, and education.

#### **Course Outcomes**

- To introduce the students to museum studies, rich cultural heritage of the country, region specific historical studies
- To teach the students about Museum Management
- To conduct the surveys of Indian Architecture
- To learn about the various aspects of Museums in India

#### **❖** Program: M.Phil. History

#### **Program Specific Outcomes**

- To acquaint the scholars with the basics and essentials of Research Methodology
- To acquaint the scholars with the recent trends in Historical Research
- To acquaint the scholars with the local, state level, and national issues relevant for Historical research

#### **❖** Program : Ph. D. History

# **Program Specific Outcomes**

- To carry out Research in discipline specific or interdisciplinary topics, leading to a doctoral degree
- To make a significant contribution towards creation of new insights in the subject
- To carry out research for correlating various historical perspectives in the present contexts.

#### **❖** Program: LL.B.

#### **Program Specific Outcomes**

- To prepare the Law graduates enshrined with the values of practicing Law for justice
- To enrich the students with theoretical and practical knowledge of Law

- To educate the students about General Principles of Contract, and Consumer Protection Act, 1986, Specific Contract, Sale of Goods Act, 1930, Indian Partnership Act, 1932 and Specific Relief Act, 1963
- To elaborate the Law of Torts and Motor Vehicle Act, Family Law-I (Hindu Law), Family Law-II (Mohammedan Law), Constitutional Law of India, and Environmental Law
- To teach the Legal and Constitutional History of India, Rajasthan Local Laws and Criminal Minor Act
- To inculcate in the students the Professional Ethics, Lawyer's accountability and Bar-Bench relations.
- To provide the information on Jurisprudence, Law of Crimes, Company Law, Public International law and Human rights, Labour Laws, Administrative Law, Taxation Law, Insurance Law, and Banking Law including Negotiable Instrument Act, 1881.
- To acquaint the students with Public Interest Lawyering, Legal Aid and Para Legal Services.
- To describe the Law of Evidence, The Code of Criminal Procedure, 1973, Juvenile Justice Act, 2000 and Probation of Offenders Act, 1958.

- To make the students aware about the Code of Civil Procedure, 1908 and Limitation Act, 1963, Legal Language, Legal Writing including General English and Interpretation of Statutes and Trust, Equity and Fiduciary Relationship
- To provide with the information on Criminology and Penology, Intellectual Property Law, Law of Medicine. Arbitration, Conciliation and alternative Disputes Resolution System and Laws
- To train them in Drafting, Pleading, Conveyancing and Moot Court trial.

### \* Program: LL.M.

#### **Program Specific Outcomes**

- To prepare the Law post graduates enshrined with the values of practicing Law for justice
- To enrich the students with both theoretical and practical knowledge of Law

#### **Course Outcomes**

- To understand the International Law and Organization: Law, Practice and Future, Disarmament & Peace Strategies, International Humanitarian Law, International law: Diplomacy & Contemporary Issues, and Law of the Sea
- To acquaint the students with International law and Organization: Law, Practice and Future, Disarmament & Peace Strategies, International Humanitarian Law, International law: Diplomacy & Contemporary Issues and Law of the Sea
- To familiarize the students with Comparative Criminal Procedure, Penology & Victimology, Drug Addiction, Juvenile Delinquency, Privileged Class deviance and Criminal Justice, and Collective Violence
- To understand Concept and Development of Human Rights, Human Rights in International and Regional Perspective, Human Rights: Enforcement Mechanism, Human Rights of disadvantaged Groups: Women, Children, elderly Persons and Refugee, Science, Technology and Human Rights

#### **❖** Program: B. Library & Information Science

# **Program Specific Outcomes**

- To produce graduates who can assist in Library management
- To train students for the job of Library Assistant

#### **Course Outcomes**

- To teach foundation of Library and Information Science
- To explain the Knowledge Organization: Classification and Cataloguing
- To familiarize with the Management of Library & Information Centers/ Institutions
- To acquaint with Reference, Information Services and Sources
- To deliberate about Information and Communication Technology (Theory)
- To give practical knowledge of the Library management system

#### **❖** Program : M.Sc. Microbiology

#### **Program and Program Specific Outcomes**

- To create the theoretical and practical understanding of the different branches of the subject such as Eukaryotic microorganisms, Prokaryotic microorganisms, Microbial Genetics, etc.
- To create understanding about different roles and applications of Microbiology in the Human life like Industrial Microbiology, Soil and Agricultural Microbiology, Environmental Microbiology etc.

- To create understanding about designing and implementing experiments in Basic Microbiology, Industrial Microbiology, Immunology, Microbial Genetics etc.
- To provide training in the subject through execution of short Research projects related to Microbiology.

#### **Course Outcomes**

M.Sc. Microbiology course incorporating different courses related to Microbiology such as General Microbiology and Bacteriology, Microbial Physiology and Biochemistry, Molecular Biology, Bioinstrumentation, Eukaryotic Microbiology, Industrial and food Microbiology, Environmental Biotechnology, Medical Microbiology, Bioinformatics and Computer Applications etc. have the following outcomes:

- To explain the systematic and occurrence of Bacteria, Archaea, Fungi, Algae, Viruses and Protozoa.
- To elaborate various biochemical pathways and cycles and their roles in human health and disease.
- To understand the structure and function of different bio-molecules like DNA, RNA and Proteins.
- To comprehend the principles, working and uses of different instruments used in Microbiology
- To explain the basic concepts of Prokaryotic and Eukaryotic genetic materials, their growth, multiplication and reproduction.
- To explain the process of Fermentation and its applications for the production of different microbial products both natural and recombinant.
- To explain different modes of Fermentation such as Batch, Fed-batch and Continuous.
- To explain the role of microorganisms in biogeochemical cycling of different elements and their role in the management of the Environment.
- To explain the role of microorganisms in diseases, their diagnosis and control.
- To explain the applications of Bioinformatics and Computers in the study of microorganisms.

# ❖ Program : M. Phil. Microbiology

#### **Program Specific Outcomes**

- To develop an aptitude for microbiological research through design and execution of the experimental work, analysis of the data/research outcomes and presentation of the results
- To develop academic writing skills, including research reviews, research papers, case studies, project proposals and dissertation/thesis
- To offer a sound basis in Research Methodology
- To enable candidates to develop areas of specialization, while taking forward a broad range of scholarly interests

- Research Methodology and Bioinstrumentation, Recent trends in Biology and Bioinformatics, Environmental and Industrial Microbiology, Research Project/Case Study
- To acquaint the students with the basics and essentials of Research Methodology

- To acquaint the students with the recent trends in Biology and Bioinformatics
- To acquaint the students with the Environmental and Industrial Microbiology

#### **❖** Program : Ph. D. Microbiology

#### **Program Specific Outcomes**

- To carry out Research in discipline specific or interdisciplinary topics, leading to a doctoral degree
- To make a significant contribution to creation of new insights in the subject
- To carry out research for novel findings, innovations and discoveries.

# \* Program: M.A. Rajasthani

#### **Program Specific Outcomes**

- To maintain and conserve the Rajasthani culture
- To introduce the students to Rajasthani culture and heritage
- To spread the Rajasthani culture and life style in India
- To get a recognition for Rajasthani as a language of mass communication

#### **Course Outcomes**

- To acquaint the students with ancient, medieval and modern poetry
- To teach the students with ancient, medieval and modern prose
- To teach the students the History of Rajasthani Language and Literature
- The students learn poetic recitation
- To acquaint the students with the biographies of distinguished writer like Isardas, Meera Bai, and Jankavi Ganseh Lal Vyas

#### **❖** Program: M.Sc. Yoga

#### **Program Specific Outcomes**

- To produce trained PG students in Yoga who can practice Yoga for the well being of themselves and the society
- To produce trained PG students who can act as instructors for teaching yoga at different institutes

#### **Course Outcomes**

- To acquaint the students with the Philosophical Background of Yoga
- To teach the Yoga Vasishtha and Yoga and Health,
- To explain about the Diet and Dietary Management for Common Diseases
- To elaborate the importance of Sadana and Theory of Hathyoga, Psychology and its Relevance to Yoga and Study of Yogic practices
- To explain the Research Methods and Statistic in Yoga Education
- To carry out research in Yoga through dissertation/project/training/review/clinical project/ internship/case study

#### **❖** Program: B.Sc. Yoga

#### **Program Specific Outcomes**

- To produce trained Graduate in Yoga who can practice Yoga for the well being of themselves and the society
- To produce Yoga Graduates who can act as trainers for teaching yoga at different institutes

#### **Course Outcomes**

• To teach the basic principles of yoga and its relevance

- To illustrate the human biology and nutrition related biochemistry
- To train in Yoga therapy (Modern & Ancient)
- To familiarize the aspirant students with Yoga & Spirituality
- To describe the Patanjal Yoga Texts
- To learn the significance of Brain-Psychology And Naturopathy
- To train the students in Nature Cure Methods and Practice
- To educate the aspirants in Stress Management and Yoga Research