

### **SPC Government College**

Beawer Road, Ajmer-305001



# Course/Program Learning Outcomes of Graduation Degree

# The broad aims of bachelor's degree programme are:

- I. To provide an environment that ensures cognitive development of students in a holistic manner, in a learning atmosphere. A dialogue about the various concepts and their significance is fostered, rather than mere theoretical aspects
- 2. To provide the latest subject matter, both theoretical as well as practical, in such a way to enhance their core competency and discovery learning. A graduate as envisioned, would be sufficiently competent in the field to undertake further discipline-specific studies, as well as to begin domain-related employment.
- 3. To mould a responsible citizen who is aware of most basic domain-independent knowledge, including critical thinking and communication.
- 4. To enable the graduates to prepare for the state, national as well as international competitive examinations, especially UGC-CSIR NET and state and central Civil Services Examinations.

Our institute provides bachelor's degree programmes in the three faculties of Science, Commerce and Arts along with the BBA programme.

### I. B.Sc. {Bachelor of Science}

## I.I B.Sc. (Biology) {Courses: Botany, Zoology and Chemistry}

The curriculum of Botany and Zoology are not in the form of watertight compartments and have sufficient scope of orienting the learning from a descriptive explanation of the specific branch of biology to a more interdisciplinary and applied foundations of of life sciences, Molecular Biology, Ecology and environment and Biotechnology.

In the evolving biological paradigm of modern times; where, living beings need to be understood at the level of atomic interactions; and comparative systems of organisms need to be studied through integrated chemical, physical, mathematical and molecular entities to appreciate the inner working of different organisms at morphological, cellular, molecular, interactive and evolutionary levels, the programme intends to develop a comprehensive understanding and appreciation of the differences through ICT tools and well-designed hands on practical exposures along with the field work. The graduates would be better trained without rote learning.

Diversity in the life forms need to be understood by a Botanist as well as a Zoologist for its socio-economic significance, in case a student is interested in entrepreneurship, through applied aspects of the subject; and by a career-researcher to be studied in an integrated and cross-disciplinary manner with a comprehensive understanding of all living systems their relationship with ecosystem

A comprehensive knowledge of structure-function relationship at the level of gene genome cell tissue organ and systems through development, to add to the knowledge base and equip the students with a background suitable for the contemporary studies in the field of Biology both Botany and Zoology

These courses and their practical exercises help the students to apply the knowledge in future course of the career development in higher education and research in addition they may get interested to look for engagement in industry and commercial activities employing these fields of knowledge

Chemistry being the backbone of both biological and physical world has been included in both BSc Biology as well as BSc mathematics group apart from the Honours course in the subject.

The program aims at equipping the graduates with necessary skills for Chemistry related Carriers Carriers with general Graduate Level aptitude and for higher education in chemistry and allied subjects.

Students will acquire core competency in the subject Chemistry, and in allied subject areas. Systematic and coherent understanding of the fundamental concepts in Physical chemistry, Organic Chemistry, Inorganic Chemistry, Analytical Chemistry and all other related allied chemistry subjects. Students will be able to understand the basic principle of equipment's, instruments used in the chemistry laboratory.

The practical application of theoretical concepts is taught with substantial coverage of practical and field works.

# 1.2. B.Sc. (Maths) {Courses: Mathematics, Physics and Chemistry}

The graduates gets equipped with a fundamental/systematic or coherent understanding of the academic field of Physics, its different learning areas like Astrophysics, Material science, Nuclear and Particle Physics, Condensed matter Physics, Atomic and Molecular Physics, Mathematical Physics, Analytical dynamics, Space science and applications. They acquire procedural knowledge that creates different types of professionals related to different areas of study in Physics outlined above, including research and development, teaching and government and public service.

A student who has taken up the Bachelor's degree in mathematics is well versed with in-depth knowledge of algebra, calculus, geometry, differential equations and several other branches of mathematics. This also leads to study of related areas like computer science and statistics. Thus, this programme helps learners in building a solid foundation for higher studies in mathematics. The skills and knowledge gained leads to proficiency in analytical reasoning. This can be utilised in modelling and solving real life problems. Students undergoing this programme learn to logically question assertions, to recognise patterns and to distinguish between essential and irrelevant aspects of problems.

This helps them to learn to behave responsibly in a rapidly changing interdependent society.

Students completing this programme will be able to present mathematics clearly and precisely, and explain fundamental concepts of mathematics to non-mathematicians. Thus, completion of this programme will also enable the learners to join teaching professions in primary and secondary schools. This programme will also help students to enhance their employability for government jobs, jobs in banking, insurance and investment sectors, data analyst jobs and jobs in various other public and private enterprises.

# 1.3 B.Sc. (Chemistry Honours) {Courses: Chemistry, Physics/ Zoology}

There exists flexibility of choice of subsidiary course in Chemistry Honours. A student from Biology stream may opt for Zoology while the one from mathematics stream may go in for Physics.

Chemistry is referred to as the science that systematically studies the composition, properties, and reactivity of matter at atomic and molecular level. The scope of chemistry is very broad. The key areas of study of chemistry comprise Organic chemistry, Inorganic Chemistry, Physical Chemistry and Analytical Chemistry. Organic chemistry deals with study of substances containing carbon mostly; inorganic chemistry deals with study of all other elements/compounds/substances and their chemical properties. Physical chemistry deals with applications of concepts, laws to chemical phenomena.

Analytical chemistry, in general, deals with identification and quantification of materials. Development of new interdisciplinary subjects like nano-materials, biomaterials, etc. and their applications from chemistry point of view added a new dimension to materials chemistry.

A scholar on completion of this honour's programme acquires the procedural knowledge that creates different types of professionals in the field of chemistry and related fields such as pharmaceuticals, chemical industry, teaching, research, environmental monitoring, product consumer goods industry, food products, cosmetics industry, etc; along with the practical skills related to specialisation area(s) within chemistry as well within the subfields of chemistry (analytical, inorganic, organic and physical), and related fields of study, including other broader interdisciplinary subfields (life, environmental and material sciences)

The program incorporates broad and balanced knowledge in chemistry along with understanding of chemical concepts, principles and theories and a broad range of both theoretical and applied chemistry problems to enhance and ensure cognitive development of students in a Holistic manner. The graduates acquire the skills required for the extraction, separation, identification and synthesis of a variety of organic compounds utilized in the chemical and pharma industry.

They also become competent to use Newer techniques of molecular modelling, electrochemical methods of analysis and use of IR, NMR and other spectroscopic techniques in the identification of inorganic and organic compounds at semi-micro level.

These students recognize and appreciate the importance of the chemical sciences and its application in academic, industrial, economic, environmental and social contexts.

# I.4. B.Sc. (Maths Honours) { Courses: Mathematics,Physics}

Students going in for the academically more specialised and standard knowledge base by opting for the Honours degree in Mathematics, demonstrate not only the fundamental systematic knowledge of mathematics and its applications in engineering, science, technology and mathematical sciences, but also enhance the subject specific knowledge which help creating jobs various sectors. The graduate in in demonstrate educational skills in areas of analysis, geometry, algebra, mechanics, differential equations etc. and also apply knowledge, understanding and skills to identify the difficult/unsolved problems in mathematics and to collect the required information in possible range of sources and try to analyse and evaluate these problems appropriate methodologies. Equips the scholar to apply one's disciplinary knowledge and skills in mathematics in newer domains and uncharted areas.

### 2. B.Com. {Bachelor of Commerce}

# 2.1. B.Com. { Courses: Business Administration, Economic Administration and Financial Management; Accounting and Business Statistics}

A graduate in the faculty of Commerce will not only acquire the ability to organize and apply skills related to business, trade, commerce, industry, and economy, but will also inculcate the potential of thinking in a pragmatic manner about nation building through effective utilization of skills, resources, manpower, and one's abilities. An understanding of the subject will cultivate the ideology which ensures a sustainable economic system based on eco-friendly fair business practices. The various courses of the programme promotes experiential learning in various domains of Commerce discipline that includes Investment, Insurance, and Banking..

Commerce being an interdisciplinary subject, integrate courses covering various domains like Accounting, Management, Finance, Taxation, Law, Marketing, Human Statistics, Economics. Information & Resource. Communication Technologies, Entrepreneurship, etc. to enhance the required theoretical knowledge and practical exposure of the students. They are designed keeping in view the employability, research, and innovation in the field of Business especially in Accounting, and Management, Finance, Marketing, Human Resource, Taxation, Business Laws, and Entrepreneurship.

The programme provides an extreme and rigorous base for the scholars to undertake further studies in commerce and its allied areas on multiple disciplines concerned with commerce.

### 2.2. B.Com. (ABST Honours) {Courses: ABST, EAFM/BA }

After completing this graduation programme, the student will acquire a systematic, extensive and coherent knowledge and understanding of the various facets of accounting viz. Cost Accounting, Corporate Accounting, Financial Accounting, Management Accountancy, Income Tax Law and Accounts etc. thus providing a strong base for future pursuits in the sphere. The programme will also enhance a critical understanding of the established theories, principles and concepts, and of a number of advanced and emerging issues in the field of the Statistical abilities along with a theoretical and practical understanding of Auditing and Assurance, Security analysis and Portfolio Management, Taxation Law, Operational Research and the Costing Problems. The acquired procedural knowledge will create different types of professionals in the field of Business statistics and accounting.

### 3. BBA (SFS Programme):

The programme aims to incorporate the knowledge, skills, attitudes and values that are expected to be acquired by a graduate in the sphere of business administration.

The graduate acquires competency in reference to both disciplinary knowledge and understanding as well as generic skills. It helps inculcate an understanding of Traditional and Contemporary Managerial Concepts and Models of Business & Management and the implications of psychologies and behavioral aspects on the organizations. On completion of the programme the scholar acquires competence for analyzing business environment and application of business concepts and managerial skills. They are able to explore the opportunities existing in the domestic and global business and economic environment and initiate systematic approach rational decision making and implementing towards conceptual knowledge in real business situations for ensuring business sustainability and growth.

### 4. B.A. {Bachelor of Arts}

# 4.1. B.A. { 14 combinations of the 14 Arts(humanities) subjects}

A bachelor's degree in Humanities offers a broad education spanning various aspects of Social Sciences language history etc. Sufficient flexibility prevails in the graduation program in the faculty of Arts and all the combinations of various courses available ensure Holistic development of the student keeping in mind to develop critical thinking skills, analysis, problem solving and independent thinking in the students pursuing the programme.

The plethora of courses available in the program ensures the availability of prospects of individual growth and development of mental faculties of the students from various strata of the society. They will be able to represent and critically respond to the multiple points of views on various issues in different historical, social and/ or cultural contexts. And also demonstrate a General understanding of the concepts and principles of selected area of study outside the core disciplines also inculcate and ability to apply an independent approach to knowledge that uses of enquiry and methods rigorous appropriate methodologies that are applied with intellectual honesty and the respect for ethical values a graduate in Humanities will be capable of RQ late articulating the relationship between diverse forms of knowledge and the social historical and cultural contexts that produced them.

Inclusion of choice from among the 7 languages in the course content enables the students to learn and appreciate the importance and richness of each and every language. Graduates opting for any of the languages will acquire the efficiency to communicate effectively in speech and writing.

Students pursuing studies in such diverse fields of humanities develop an inbuilt attitude to act as informed and critically discerning participants within the community of scholars, as citizens and in the workforce.

### 4.2 BA Honours (Economics)

Apart from getting an understanding of basic economic theory the scholars learn the mathematical and statistical techniques necessary for a proper understanding of the discipline; the scholars are introduced to real world economic issues and problems facing the country and the world, like inflation, money supply, GDP and their interlinkages.and they gain an understanding of proper policy responses to economic problems; the students pursuing this course get trained to collect primary data and learn sampling techniques; and also learn to use scientific empirical methods to arrive at conclusions about the validity of economic theories; They acquire the skill of economic modelling. The analytical tools introduced in this course have applications wherever optimisation techniques are used in business decision-making. These tools are necessary for anyone seeking employment as an analyst in the corporate world. The course additionally makes the student more logical in making or refuting arguments.

### 4.3. BA Hons (History)

A scholar of History Honours graduation is oriented to track various changes that are happening or have occurred in the past and to understand how and why these changes take place; they also have an understanding as to how the present world in which we live has evolved.

An understanding of the emergence of the contemporary world, its economies and societies including the forest dwellers and other ethnic groups provides a perspective to see everyday things from a different angle and the youth realise that even seemingly ordinary things have a history that is important to decide upon the future context. The honours programme seeks to provide multiple points of intersection with disciplines in the Social Sciences Humanities and from a historical perspective, thus enriching analysis and problem solving capabilities of the student pursuing this programme. The program will prepare the students for Academia and also prepare them to use this knowledge for employment via various competitive exams. Above all it brings out the best intellect of the student and enables them to keep up with contemporary development.

### 4.4. BA Hons. Course (Geography)

Apart from enhancing the capability of the students in perceiving, creating and analysing sound geographical bases and concepts, the graduates of honours (geography), are oriented towards identification and analysis of various facets of geographical features and processes and develop an aptitude for acquiring basic skills of carrying out field work including map making. The scholars learn the science and art of collecting, processing and interpreting the data and are also exposed to the use of the updated technologies of remote sensing.

Such as RNSS, GNSS, Geographical Information System (GIS) and GIScience, which would help in giving focused and precise understanding of geographical phenomenon.

These students acquire the ability to understand and critically analyze various dimensions of the geographical issues.

### 4.5. BA Hons Course (Political Science)

The Honours program at graduation level in Political Science caters to the need of a nation to develop and nurture citizens well versed with the constitutional legal and procedural details connecting the theory with the scenario around. It provides a window through which the scholar gets to look at the theory and the practice of politics and contemporary democracy. It develops the faculties of critical thinking, sensitive and passionate debates and exposes our next generation to understand the policies and politics it creates and interest and understanding of the central issues and moves from concrete to the Abstract.