Programme: B.Sc.

Program Outcomes

Bachelor of Science (B.Sc.) offers theoretical as well as practical knowledge about different subject areas. These subject areas include Physics, Chemistry, Mathematics and Biology, Zoology and other fields depending on the specialization a student opts. This programme course is most beneficial for students who have a strong interest and background in Science and Mathematics. The course is also beneficial for students who wish to pursue multi and inter-disciplinary science careers in future. Following are the various programme outcomes:

1. This course forms the basis of science and comprises of the subjects like physics, chemistry, biology, zoology and mathematics.

2. It helps to develop scientific temper and thus can prove to be more beneficial for the society as the scientific developments can make a nation or society to grow at a rapid pace.

3. After the completion of this course students have the option to go for higher studies i.e. M. Sc and then do some research for the welfare of mankind.

4. After higher studies students can join as scientist and can even look for professional job oriented courses.

5. This course also offers opportunities for serving in Indian Army, Indian Navy, Indian Air Force as officers.

6. Students after this course have the option to join Indian Civil Services as IAS, IFS etc..

7. Science graduates can go to serve in industries or may opt for establishing their own industrial unit.

8. After the completion of the B.Sc. degree there are various other options available for the science students. Often, in some reputed universities or colleges in India and abroad the students are recruited directly by big MNC's after their completion of the course.

9. Apart from the research jobs, students can also work or get jobs in Marketing, Business & Other technical fields. Science graduates also recruited in the bank sector to work as customer service executives. Students can also find employment in government sectors.

Programme Specific Outcomes Mathematics

(i) A student should be able to recall basic facts about mathematics and should be able to display knowledge of conventions such as notations, terminology and recognize basic geometrical figures and graphical displays, state important facts resulting from their studies.
(ii) A student should get a relational understanding of mathematical concepts and concerned structures, and should be able to follow the patterns involved, mathematical reasoning.
(iii) A student should get adequate exposure to global and local concerns that explore them many aspects of Mathematical Sciences.
(iv) A student be able to apply their skills and knowledge that is, translate

Information presented verbally into mathematical form, select and use appropriate mathematical formulae or techniques in order to process the information and draw the relevant conclusion.

(v) A student should be made aware of history of mathematics and hence of its past, present and future role as part of our culture.

Course Outcomes Mathematics

Topics	Outcomes
Algebra and Geometry	1. Solve various problems on properties of integers and use the basic concepts of divisibility, congruence and their applications in basic algebra. 2. Apply factor theorem, remainder theorem to solve problems on polynomials and by using given relations between roots he will find the roots of polynomials 3. Solve the system of homogeneous and non homogeneous linear of m equations in n variables by using concept of rank of matrix, finding Eigen values and Eigen vectors 4. Solve the problems of lines in three dimension, planes, spheres, and cylinders and how geometry is related to algebra by using their algebraic equations.
Calculus and Differential Equations	1. Identify algebraic and order properties of real numbers. 2. Identify and apply the function properties of real number system such as the completeness property 3. Verify the values of limit of a function at a point using the definition of a limit 4. Students will be familiar with the techniques of integration and differentiation of function with real variables 6. Identify types of differential equations and solve differential equations such as Exact, homogeneous, non-homogeneous, and linear and Bernoulli differential equations etc.
Linear Algebra	1. Use the concept of basis and dimension of vector spaces linear dependence and linear independence, to solve problems. 2. Use the concept of inner product spaces to find norm of vectors, distance between vectors, check the orthogonality of vectors, to find the orthogonal and orthonormal basis. 3. Apply the properties of linear transformations to linearity of transformations, kernel and rank of linear transformations, inverse transformations to solve the problems of matrix transformations, change of basis.
Partial Differential Equations	Form the partial differential equations and Solve the problems on Partial differential equations. Solve the problems on first order and higher degree partial

	differential equations and its applications
Advanced Calculus	1. Compute double integrals, applications to area and volume, Green's them in the plane and the change of variables in double integrals 2. Understand basic notions such as derivative of the scalar field w.r.to vector field, gradient of scalar field, paths and line integrals 3. Recognize fundamental vector product, area of various parametric surfaces