

**ST. JOSEPH'S COLLEGE, DEVAGIRI, CALICUT  
(AUTONOMOUS)**



**B.Sc. DEGREE PROGRAMME**

**ST. JOSEPH'S CHOICE BASED CREDIT SEMESTER SYSTEM  
(SJCBCSSUG)**

**MATHEMATICS**  
(CORE, OPEN & COMPLEMENTARY COURSES)

Programme Outcome  
(2019Admn Onwards)

## Programme Outcome

<b>POs</b>	<b>PROGRAMME OUTCOMES</b>
PO1	Disciplinary knowledge: (i) Capability of demonstrating comprehensive knowledge of mathematics and understanding of one or more disciplines which form a part of an undergraduate programme of study.
PO2	Communications skills: (i) Ability to communicate various concepts of mathematics effectively using examples and their geometrical visualizations. (ii) Ability to use mathematics as a precise language of communication in other branches of human knowledge. (iii) Ability to show the importance of mathematics as precursor to various scientific developments since the beginning of the civilization
PO3	Critical Thinking: (i) Ability to employ critical thinking in understanding the concepts in every area of mathematics.
PO4	Analytical Reasoning: (ii) Ability to analyze the results and apply them in various problems appearing in different branches of mathematics.
PO5	Problem solving: (i) Capability to solve problems using concepts of linear algebra. (ii) Capability to solve various models such as growth and decay models, radioactive decay model, LCR circuits and population models using techniques of differential equations. (iii) Ability to solve linear system of equations, linear programming problems and network flow problems. (iv) Ability to provide new solutions using the domain knowledge of mathematics acquired during this programme
PO6	Research-related skills: (i) Capability for inquiring about appropriate questions relating to the concepts in various fields of mathematics. (ii) To know about the advances in various branches of mathematics.
PO7	Information/digital literacy: (i) Capability to use appropriate software to solve system of equations and differential equations.
PO8	Self-directed learning:

	(i) Ability to work independently and do in-depth study of various notions of mathematics.
PO9	Lifelong learning: (i) Ability to think, acquire knowledge and skills through logical reasoning and to inculcate the habit of self-learning.
PO10	Application skills: (i) Ability to apply the acquired knowledge in all aspects.
PO11	Experimental skills:
PO12	Moral and ethical awareness/reasoning: (i) Ability to identify unethical behaviour such as fabrication, falsification or misrepresentation of data and adopting objective, unbiased and truthful actions in all aspects