DEPARTMENT OF MATHEMATICS
GOVERNMENT CHANDULAL CHANDRAKAR ARTS AND SCIENCE COLLEGE PATAN

NEP-2020
Name of the Program- B.Sc. (Bachelor of Science)

PROGRAM SPECIFIC OUTCOME (PSO)
Name of the Specific Program- B.Sc. in Mathematics

Program specific outcome of B. Sc. in Mathematics

PSO-1. Ability to develop scientific thought and acquire in death knowledge of algebra, calculus, real analysis, complex analysis, topology and several other branches of mathematics. This program helps learners in building a solid foundation for higher studies in Mathematics.

PSO-2. Utilize mathematics to solve theoretical and applied problem bhai critical thinking understanding analysis and synthesis

PSO-3. The skills and knowledge gained has intrinsic beauty, which also leads to proficiency in analytical reasoning. This can be utilized in modelling and solving real life problems.

PSO-4. Ability to apply mathematical tools in Physics, Economics, Optimization and other subjects. It will also develop understanding the architecture of curves and surfaces in plane and spaces etc.

PSO-5. This program will also enable the learners to join teaching profession in schools and this will help the 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.

विभागाध्यक्ष
गणित विभाग
शास.चन्दूलाल चन्द्राकर
कला एवं विज्ञान महाविद्यालय
पाटन,जि.– दुर्ग (छ.ग.)

(Coordinator)
I.Q.A.C.

Principal
Govt.C.L.C.Arts & Science College
Patan,Dist-Durg (C G)

GOVERNMENT CHANDULAL CHANDRAKAR ARTS AND SCIENCE COLLEGE PATAN

COURSE OUTCOME FOR B.Sc.-I Semester (Mathematics)
Discipline Specific Course (DSC)- Mathematics

Name of the Course (Paper)-ELEMENTARY CALCULUS
Course (Paper) Code- MASC-01

Semester-I
Course Code- (MASC-01)
Course Title- Elementary Calculus
Course Type- Discipline Specific Course (DSC)

Course Learning Outcome (CLO)

This course will enable the students to know about:

- Ancient Indian Mathematicians and their contribution,
- Calculate the limit and examine the continuity and understand the geometrical interpretation of differentiability. Apply various test two determine convergence
- Understand the consequences of various mean-value theorems.
- Understand concepts of Curvature and Asymptotes,
- Draw curves in cartesian and polar coordinate system.
- Understand the elementary integration of transcendental function and understand applications of reduction formulae.

HoD.
विभागाध्यक्ष
गणित विभाग
शास.चन्दूलाल चन्द्राकर
कला एवं विज्ञान महाविद्यालय

Coordinator

Principal
Govt.C.L.C.Arts & Science College
Patan,Dist-Durg (C G)

COURSE OUTCOME FOR B.Sc.-II Semester (Mathematics)
Discipline Specific Course (DSC)- Mathematics

Name of the Course (Paper)- ALGEBRA
Course (Paper) Code- MASC-02

Semester-II
Course Code- (MASC-02)
Course Title- Elementary Calculus
Course Type- Discipline Specific Course (DSC)

Course Learning Outcome (CLO)

This course will enable the students to:

- Learn about the matrix algebra.
- Understand set theory, function, and relation.
- Learn about the theory of equations.
- Learn about the fundamental concepts of groups, subgroups.
- Understand cosets and normal subgroups.

विभागाध्यक्ष
Head गणित विभाग
शास.चन्दूलाल चन्द्राकर
कला एवं विज्ञान महाविद्यालय
पाटन,जि.– दुर्ग (छ.ग.)

Coordinator

Principal
Govt.C.L.C.Arts & Science College
Patan,Dist-Durg (C.G.)

Principal

COURSE OUTCOME FOR B.Sc.-III Semester (Mathematics)
Discipline Specific Course (DSC)- Mathematics

Name of the Course (Paper)- DIFFERENTIAL EQUATION
Course (Paper) Code- MASC-03

Semester-III
Course Code- (MASC-03)
Course Title- Differential Equation
Course Type- Discipline Specific Course (DSC)

Course Learning Outcome (CLO)

This course will enable the students to:

- Learn various techniques of getting exact solutions of certain solvable first order differential equations and linear differential equations of second order.
- Understand the Genesis of ordinary as well as partial differential equations
- Learn about solution of first order linear partial differential equations using Lagrange's method.
- Know how to solve second order linear partial differential equations with constant coefficients.

विभागाध्यक्ष
गणित विभाग
शास.चन्दूलाल चन्द्राकर
एवं विज्ञान महाविद्यालय
पाटन,जि.– दुर्ग (छ.ग.)
HOD

Coordinator

Principal
Govt.C.L.C.Arts & Science College
Patan,Dist-Durg (C G)

COURSE OUTCOME FOR B.Sc.-IV Semester (Mathematics)
Discipline Specific Course (DSC)- Mathematics

Name of the Course (Paper- IV)- ABSTRACT ALGEBRA
Course (Paper) Code- MASC-04

Semester-III
Course Code- (MASC-04)
Course Title- Abstract Algebra
Course Type- Discipline Specific Course (DSC)

Course Learning Outcome (CLO)

The students will able to:

- Understand of Homomorphism, Isomorphism of group.
- Understand cyclic and permutation groups.
- Understand vector spaces, Sub spaces basis, dimension, and their properties.
- Learn about properties of linear transformation and isomorphism theorems.
- Understand the concept of linear transformations.

विभागाध्यक्ष
गणित विभाग
शीला चन्दूलाल चन्द्राकर
कला एवं विज्ञान महाविद्यालय
पाटन,जि.– दुर्ग (छ.ग.)

Coordinator

Principal
Govt.C.L.C.Arts & Science College
Patan,Dist-Durg (C G)

COURSE OUTCOME FOR B.Sc.- I/ III / V Semester (Mathematics)
Value Added Course (VAC) - Mathematics

Name of the Course (Paper- I/ III/ V)-
Course (Paper) Code- MAVAC-1

Semester-I / III / V
Course Code- (MAVAC-1)
Course Title- Basic Mathematics and Logic
Course Type- Value Addition Course (VAC)

Course Learning Outcome (CLO)

This course will enable the students to:

- To orient them towards life-long learning, to develop power of concentration and to overcome the fear of mathematics from their mind.
- To cultivate scientific temper through systematic, critical, and Lateral thinking.
- To enhance their logical, analytical, and reasoning skills useful for competitive exams.
- To make understand the relevance and need of quantitative methods for making business decisions.

विभागाध्यक्ष
गणित विभाग
HOD. प्रा.स.चन्दूलाल चन्द्राकर
कला एवं विज्ञान महाविद्यालय
पाटन,जि.– दुर्ग (छ.ग.)

Coordinator

Principal
Govt.C.L.C.Arts & Science College
Patan,Dist-Durg (C G)
Principal

GOVERNMENT CHANDULAL CHANDRAKAR ARTS AND SCIENCE COLLEGE PATAN

COURSE OUTCOME FOR B.Sc.-III Semester (Mathematics)
Discipline Specific Elective (DSE)-01 (Advanced Calculus)

Name of the Course (Paper)-ADVANCED CALCULUS
Course (Paper) Code- MASE-01

Semester-III
Course Code- (MASE-01)
Course Title- Advanced Calculus
Course Type- Discipline Specific Elective (DSE)

Course Learning Outcome (CLO)

This course will enable the students to:

- Calculate the limit and examine the continuity and understand the concept of limit, continuity and differentiability of functions of more than one variable with geometrical interpretation.
- To understand the concept of mean value theorem with their applications.
- To understand the concept of maxima and minima for function of two and three variables with their uses and techniques.
- Understand conceptual variations while advancing from one variable to several variables in calculus.
- Understand the concept of integration of functions of two and three variables and their evaluation technique with emphasis on beta and gamma functions.

विभागाध्यक्ष
गणित विभाग
शासकीय चन्दूलाल चन्द्राकर
कला एवं विज्ञान महाविद्यालय
पाटन,जि.– दुर्ग (छ.ग.)
HOD

Coordinator

26/7/25
Principal
Govt.C.L.C.Arts & Science College
Patan,Dist-Durg (C G)
Principal