

List of Courses – FYUGP

NSS College, Pandalam

Name of the Department: **Mathematics**

Semester: I

Discipline Specific Core (DSC)

Sl. No.	Course Code	Name of the Course
1	UK1DSCMAT100	Foundations of Mathematics
2	UK1DSCMAT105	Differentiation and Complex Numbers
3	UK1DSCMAT110	Matrices and Linear Equations

Multidisciplinary Courses (MDC)

Sl. No.	Course Code	Name of the Course
1	UK1MDCMAT100	Numerical Ability - I

Semester: II

Discipline Specific Core (DSC)

Sl. No.	Course Code	Name of the Course
1	UK2DSCMAT100	Theory of equations, Differential Calculus and Geometry
2	UK2DSCMAT105	Applications of Differentiation and Ordinary Differential Equations
3	UK2DSCMAT108	Integral Calculus and Series

Multidisciplinary Courses (MDC)

Sl. No.	Course Code	Name of the Course
1	UK2MDCMAT100	Numerical Ability- II

Semester: III**Discipline Specific Core (DSC)**

Sl. No.	Course Code	Name of the Course
1	UK3DSCMAT200	Integral Calculus and Foundations of Vector Calculus
2	UK3DSCMAT207	Applications of Integration, Special Functions and Fourier Series
3	UK3DSCMAT212	Vector Calculus

Discipline Specific Elective (DSE)

Sl. No.	Course Code	Name of the Course
1	UK3DSEMAT200	Programming with LATEX and Python

Semester: IV**Discipline Specific Core (DSC)**

Sl. No.	Course Code	Name of the Course
1	UK4DSCMAT200	Introduction to Real Analysis and Multiple Integrals
2	UK4DSCMAT201	Partial Differentiation and Introduction to Abstract Algebra

Discipline Specific Elective (DSE)

Sl. No.	Course Code	Name of the Course
1	UK4DSEMAT200	Elementary Graph Theory

Internship

Sl. No.	Course Code	Name of the Course
1	UK4INTMAT200	Summer Internship

Semester: V**Discipline Specific Core (DSC)**

Sl. No.	Course Code	Name of the Course
1	UK5DSCMAT300	Differential Equations and Vector Calculus
2	UK5DSCMAT301	Real Analysis - I
3	UK5DSCMAT302	Abstract Algebra

Discipline Specific Elective (DSE)

Sl. No.	Course Code	Name of the Course
1	UK5DSEMAT300	Intermediate Graph Theory
2	UK5DSEMAT303	Optimization Techniques

Semester: VI**Discipline Specific Core (DSC)**

Sl. No.	Course Code	Name of the Course
1	UK6DSCMAT300	Real Analysis - II
2	UK6DSCMAT301	Complex Analysis I
3	UK6DSCMAT302	Linear Algebra

Discipline Specific Elective (DSE)

Sl. No.	Course Code	Name of the Course
1	UK6DSEMAT303	Foundations of Computational Mathematics with SageMath
2	UK6DSEMAT304	Integral Transforms

Semester: VII**Discipline Specific Core (DSC)**

Sl. No.	Course Code	Name of the Course
1	UK7DSCMAT400	Topology
2	UK7DSCMAT401	Complex Analysis - II

Discipline Specific Elective (DSE)

Sl. No.	Course Code	Name of the Course
1	UK7DSEMAT407	Measure Theory

Semester: VIII

Capstone Project

Sl. No.	Course Code	Name of the Course
1	UK8CIPMAT400	Capstone Project