

List of Courses – FYUGP

NSS College, Pandalam

Name of the Department: **Physics**

Semester: I

Discipline Specific Core (DSC)

Sl. No.	Course Code	Name of the Course
1	UK1DSCPHY100	Foundation Course in Physics-I
2	UK1DSCPHY101	Principles of Dynamics
3	UK1DSCPHY103	Introduction to Mechanics and Energy Resources

Multidisciplinary Courses (MDC)

Sl. No.	Course Code	Name of the Course
1	UK1MDCPHY101	Environmental Physics
2	UK1MDCPHY103	Physics in Arts and Sports
3	UK1MDCPHY104	Physics of Everyday Appliances

Semester: II

Discipline Specific Core (DSC)

Sl. No.	Course Code	Name of the Course
1	UK2DSCPHY100	Foundation Course in Physics-II
2	UK2DSCPHY101	Electricity, Magnetism and Acoustics
3	UK2DSCPHY103	Modern Physics

Multidisciplinary Courses (MDC)

Sl. No.	Course Code	Name of the Course
1	UK2MDCPHY100	Archaeo Physics
2	UK2MDCPHY101	Basics of Artificial Intelligence
3	UK2MDCPHY102	Beyond the Sky

Semester: III

Discipline Specific Core (DSC)

Sl. No.	Course Code	Name of the Course
1	UK3DSCPHY200	Basic Electronics (Mandatory)
2	UK3DSCPHY201	Digital Electronics and Data Science
3	UK3DSCPHY203	Heat, Magnetism and Geophysics

Discipline Specific Elective (DSE)

Sl. No.	Course Code	Name of the Course
1	UK3DSEPHY203	Fundamentals of Astrophysics
2	UK3DSEPHY204	Introduction to medical physics
3	UK3DSEPHY205	Mathematical tools for Physics

Value Added Courses (VAC)

Sl. No.	Course Code	Name of the Course
1	UK3VACPHY201	Introduction to Laboratory Safety Measurements
2	UK3VACPHY202	The History of Physics and its Influence on Society

Semester: IV

Discipline Specific Core (DSC)

Sl. No.	Course Code	Name of the Course
1	UK4DSCPHY200	Classical Dynamics (Mandatory)
2	UK4DSCPHY201	Electromagnetics and Transient Currents (Mandatory)

Discipline Specific Elective (DSE)

Sl. No.	Course Code	Name of the Course
1	UK4DSEPHY201	Basic Digital principles and applications
2	UK4DSEPHY204	Physics of Medical Diagnostics

Internship

Sl. No.	Course Code	Name of the Course
1	UK4INTPHY200	Internship

Skill Enhancement Courses (SEC)

Sl. No.	Course Code	Name of the Course
1	UK4SECPHY201	Wiring and Electrical Devices

Value Added Courses (VAC)

Sl. No.	Course Code	Name of the Course
1	UK4VACPHY200	Introductory Course on Physics in Financial Market

Semester: V

Discipline Specific Core (DSC)

Sl. No.	Course Code	Name of the Course
1	UK5DSCPHY300	Optics (Mandatory)
2	UK5DSCPHY301	Quantum Mechanics - I (Mandatory)
3	UK5DSCPHY302	Thermodynamics & Statistical Mechanics (Mandatory)

Discipline Specific Elective (DSE)

Sl. No.	Course Code	Name of the Course
1	UK5DSEPHY300	Dynamics of the Atmosphere
2	UK5DSEPHY302	Characterization of Nano Materials
3	UK5DSEPHY304	Physical Aspects of Therapeutics
4	UK5DSEPHY305	Forensic Physics

Skill Enhancement Courses (SEC)

Sl. No.	Course Code	Name of the Course
1	UK5SECPHY300	Optics in Digital Photography
2	UK5SECPHY302	Programming in Python

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

Sl. No.	Course Code	Name of the Course
1	UK6DSCPHY300	Atomic & Molecular Physics (Mandatory)
2	UK6DSCPHY301	Nuclear & Particle Physics (Mandatory)
3	UK6DSCPHY302	Solid State Physics (Mandatory)

Discipline Specific Elective (DSE)

Sl. No.	Course Code	Name of the Course
1	UK6DSEPHY300	Observing of Weather and Climate
2	UK6DSEPHY302	Nanotechnology For Energy Conversion and Storage Devices
3	UK6DSEPHY303	Ionosphere and Magnetosphere
4	UK6DSEPHY304	Practical Medical Physics

Skill Enhancement Courses (SEC)

Sl. No.	Course Code	Name of the Course
1	UK6SECPHY301	PCB Making and Designing
2	UK6SECPHY302	Scientific writing

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

Sl. No.	Course Code	Name of the Course
1	UK7DSCPHY400	Advanced Mathematical Physics
2	UK7DSCPHY401	Quantum Mechanics-II

Discipline Specific Elective (DSE)

Sl. No.	Course Code	Name of the Course
1	UK7DSEPHY400	Weather Analysis and Forecasting
2	UK7DSEPHY401	Environmental Sustainability of Nanomaterials
3	UK7DSEPHY402	Frontiers of Space Science, Technology and Programming

Semester: VIII

Capstone Internship

Sl. No.	Course Code	Name of the Course
1	UK8CIPPHY400	Capstone Internship

Research Project

Sl. No.	Course Code	Name of the Course
1	UK8RPHPHY400	Research Project