



ST. ALBERT'S COLLEGE (AUTONOMOUS) ERNAKULAM

An initiative of the Archdiocese of Verapoly

(Affiliated to Mahatma Gandhi University, Kottayam)

DEPARTMENT OF SPACE SCIENCE

PROGRAMME:

M.Sc. SPACE SCIENCE AND TECHNOLOGY

Programme Outcomes

Programme Specific Outcomes

Course Outcomes

PO NO	Programme Outcomes
	Upon completion of this programme, the post-graduate will have/ be able to
PO 1	Deep discipline knowledge and intellectual breadth: Comprehensive knowledge and understanding of their subject area, the ability to engage with different traditions of thought, and the ability to apply their knowledge in practice including in multi-disciplinary or multi-professional contexts.
PO 2	Critical and creative thinking, and problem solving skills: Graduates are effective problems-solvers, able to apply critical, creative and evidence-based thinking to conceive innovative responses to future challenges.
PO 3	Teamwork and communication skills: Graduates convey ideas and information effectively to a range of audiences for a variety of purposes and contribute in a positive and collaborative manner to achieving common goals.
PO 4	Lifelong learning: An ability to identify and to address their own educational needs in a changing world in ways sufficient to maintain their competence and to allow them to contribute to the advancement of knowledge

PSO NO	Programme Specific Outcomes
	Upon completion of these courses the student would possess
PSO 1	Demonstrate sound theoretical knowledge in the realms of Physical, Astronomical and Atmospheric Sciences.
PSO 2	The ability to apply their knowledge in Contemporary practical, Computational and analytical methods in the field of Physical, Atmospheric and Astronomical Sciences.
PSO 3	The ability to work under the demanding, rigorous and time bound nature of scientific research.

- **PSO- Program Specific Outcome, CO- Course Outcome, PO – Programme Outcome**
- **Cognitive Level: R – Remember, U – Understanding, Ap – Apply, An- Analyze, E – Evaluate, C- Create.**

Major Core 1: Fundamentals of Atmospheric and Space Sciences			
Code		PSP1CRT0119	
CO No.	Course outcomes	PSOs Addressed	Cognitive Level
CO-1	Understand the fundamental concepts of Atmospheric and Space Sciences.	PSO 1	U
CO-2	Interpretation of common atmospheric phenomena with the help of basic Physics principles.	PSO 1	An

	PO 1	PO 2	PO 3	PO 4	PSO 1	PSO 2	PSO 3
CO 1	1	-	-	-	2	-	-
CO 2	-	1	-	-	-	1	-
AVG CO	1	1	-	-	2	1	-

(-)No Justification (1) Slightly Justified (2) Moderately Justified (3) Substantially Justified

Major Core 2: Classical Mechanics

Code PSP1CRT0219

CO No.	Course outcomes	PSOs Addressed	Cognitive Level
CO-1	To use Newton's laws of motion to solve advanced problems involving the dynamic motion of classical mechanical systems.	PSO- 1, 2	Ap
CO-2	To use differential equations and other advanced mathematics in the solution of the problems.	PSO- 2	Ap
CO-3	To use conservation of energy and linear and angular momentum to solve dynamics problems.	PSO- 2	Ap
CO-4	To represent the equations of motion for complicated mechanical systems using the Lagrangian and Hamiltonian formulations of classical mechanics.	PSO -1,2	Ap

	PO 1	PO 2	PO 3	PO 4	PSO 1	PSO 2	PSO 3
CO 1	3	2	1	-	2	2	-
CO 2	-	3	-	-	-	3	-
CO 3	-	1	-	-	-	2	-
CO 4	1	-	1	-	1	1	-
AVG CO	2	2	1	-	1.5	2	-

(-)No Justification (1) Slightly Justified (2) Moderately Justified (3) Substantially Justified

Major Core 3: Quantum Mechanics			
Code PSP1CRT0319			
CO No.	Course outcomes	PSOs Addressed	Cognitive Level
CO-1	Have a deep understanding of the mathematical foundations of quantum mechanics.	PSO 1	U
CO-2	Be able to solve the Schrödinger equation using various approximation methods.	PSO 2	An
CO-3	Have a basic understanding of relativistic effects in quantum mechanics.	PSO 1	U

	PO 1	PO 2	PO 3	PO 4	PSO 1	PSO 2	PSO 3
CO 1	3	-	-	-	3	-	-
CO 2	-	3	-	-	-	3	-
CO 3	2	-	-	-	1	-	-
AVG CO	2.5	3	-	-	2	3	-

(-)No Justification (1) Slightly Justified (2) Moderately Justified (3) Substantially Justified

Major Core 4: Mathematical and Statistical Methods-I			
Code		PSP1CRT0419	
CO No.	Course outcomes	PSOs Addressed	Cognitive Level
CO-1	To understand mathematical methods used in physics and its application.	PSO 2	Ap
CO-2	To understand about complex analysis and its applications.	PSO 1,2	Ap

	PO 1	PO 2	PO 3	PO 4	PSO 1	PSO 2	PSO 3
CO 1	2	2	-	-	-	3	-
CO 2	2	3	-	-	2	2	-
AVG CO	2	2.5	-	-	2	2.5	-

(-)No Justification (1) Slightly Justified (2) Moderately Justified (3) Substantially Justified

Major Core 5: Numerical Methods and Computer Programming			
Code PSP1CRT0519			
CO No.	Course outcomes	PSOs Addressed	Cognitive Level
CO-1	Apply numerical analysis which has enormous application in the field of Science and some fields of Engineering.	PSO 2	Ap
CO-2	Familiar with finite precision computation.	PSO 1	U
CO-3	Familiar with numerical solutions of nonlinear equations in a single variable.	PSO 1,2	U, Ap
CO-4	Familiar with calculation and interpretation of errors in numerical method.	PSO 1	U, Ap
CO-5	Familiar with programming with numerical packages like FORTRAN.	PSO 2,3	C

	PO 1	PO 2	PO 3	PO 4	PSO 1	PSO 2	PSO 3
CO 1	-	3	-	-	-	3	-
CO 2	1	-	-	-	2	-	-
CO 3	1	-	-	-	2	1	-
CO 4	-	2	-	-	1	-	-
CO 5	1	2	-	3	1	2	-
AVG CO	1	2.3	-	3	1.5	2	-

(-)No Justification (1) Slightly Justified (2) Moderately Justified (3) Substantially Justified

Practical Paper 1: Computer Programming - I			
Code PSP1CRP0119			
CO No.	Course outcomes	PSOs Addressed	Cognitive Level
CO-1	Problem solving through FORTRAN programs.	PSO 2,3	C
CO-2	Develop FORTRAN programs from specifications and document those programs in a style permitting the maintaining and altering of the programs by a third party.	PSO 2,3	C

	PO 1	PO 2	PO 3	PO 4	PSO 1	PSO 2	PSO 3
CO 1	-	3	-	-	-	3	1
CO 2	-	3	-	1	-	3	1
AVG CO	-	3	-	1	-	3	1

(-)No Justification (1) Slightly Justified (2) Moderately Justified (3) Substantially Justified

Major Core 6: Fundamentals of Earth Sciences and Remote Sensing			
Code		PSP2CRT0119	
CO No.	Course outcomes	PSOs Addressed	Cognitive Level
CO-1	Understanding of fundamental geologic concepts as it relates to Earth processes and landscape evolution through geologic time.	PSO 1	U
CO-2	Knowledge on the interdependence of science and technology and the influences geologic reasoning associated with identifiable and testable hypotheses of geologic processes.	PSO 1	U
CO-3	Recognize and explain at a basic level fundamental physical principle of remote sensing, including the electromagnetic spectrum; the emission, scattering, reflection, and absorption of electromagnetic (EM) radiation; how EM radiation interactions vary across a limited number of substances, geometries, and temperatures; and geometric properties of photographs and imagery.	PSO 1	An

	PO 1	PO 2	PO 3	PO 4	PSO 1	PSO 2	PSO 3
CO 1	3	-	-	-	3	-	-
CO 2	3	-	-	-	3	-	-
CO 3	3	-	-	1	3	-	-
AVG CO	3	-	-	1	3	-	-

(-)No Justification (1) Slightly Justified (2) Moderately Justified (3) Substantially Justified

Major Core 7: Statistical Mechanics			
Code PSP2CRT0219			
CO No.	Course outcomes	PSOs Addressed	Cognitive Level
CO-1	Have a deep understanding of physical statistics and its relation to information theory,	PSO 1	U
CO-2	Be able to solve statistical mechanics problems for simple non-interacting systems	PSO 2	Ap
CO-3	Have a basic understanding of the phase transitions.	PSO 1	U
CO-4	Be able to use linear response theory and kinetic equation approach.	PSO 2	Ap

	PO 1	PO 2	PO 3	PO 4	PSO 1	PSO 2	PSO 3
CO 1	3	-	-	-	3	-	-
CO 2	-	2	-	-	-	2	-
CO 3	1	-	-	-	1	-	-
CO 4	-	2	-	-	-	2	-
AVG CO	2	2	-	-	2	2	-

(-)No Justification (1) Slightly Justified (2) Moderately Justified (3) Substantially Justified

Major Core 8: Electrodynamics			
Code		PSP2CRT0319	
CO No.	Course outcomes	PSOs Addressed	Cognitive Level
CO-1	Have a deep understanding of the theoretical foundations of electromagnetic phenomena.	PSO 1	U
CO-2	Be able to solve the Maxwell equations for simple configurations	PSO 2	Ap
CO-3	To understand the concept of retarded potential and its applications in space.	PSO 1	An
CO-4	To understand about different modes of wave propagation and different types of antennas used for atmospheric and space applications.	PSO 1	U

	PO 1	PO 2	PO 3	PO 4	PSO 1	PSO 2	PSO 3
CO 1	3	-	-	-	3	-	-
CO 2	-	1	-	-	-	2	-
CO 3	1	-	-	-	2	-	-
CO 4	2	-	-	-	1	-	-
AVG CO	2	1	-	-	2	2	-

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Major Core 9: Introduction to Plasma Physics and Space Physics			
Code		PSP2CRT0419	
CO No.	Course outcomes	PSOs Addressed	Cognitive Level
CO-1	Understand and use the basic mathematical formalism needed for describing the dynamics of continuous media.	PSO 1	Ap
CO-2	Describe and define the relevant key physical theories (particularly from plasma physics) that control the qualitative properties of different space plasma phenomena.	PSO 1	An
CO-3	Calculate the quantitative behaviour of different space physics phenomena using plasma physics analysis methods.	PSO 2	Ap
CO-4	Identify ways in which experimental studies of space physics phenomena have advanced our understanding of basic plasma physics.	PSO 2,3	An

	PO 1	PO 2	PO 3	PO 4	PSO 1	PSO 2	PSO 3
CO 1	2	-	-	-	2	-	-
CO 2	2	-	-	-	2	-	-
CO 3	-	2	-	-	-	2	-
CO 4	-	2	-	1	-	2	1
AVG CO	2	2	-	1	2	2	1

(-)No Justification (1) Slightly Justified (2) Moderately Justified (3) Substantially Justified

Major Core 10: Advanced Computer Programming			
Code PSP2CRT0519			
CO No.	Course outcomes	PSOs Addressed	Cognitive Level
CO-1	Apply and develop object oriented code.	PSO 2,3	C
CO-2	Develop software for a variety of architectures (e.g. Windows, UNIX, and Linux).	PSO 2,3	C
CO-3	Choose an appropriate computer language (e.g. Python, MATLAB, IDL) for a given project.	PSO 2,3	An

	PO 1	PO 2	PO 3	PO 4	PSO 1	PSO 2	PSO 3
CO 1	1	2	-	2	1	2	2
CO 2	-	2	-	2	-	2	3
CO 3	-	2	-	1	-	2	3
AVG CO	1	2	-	1.6	1	2	2.6

(-)No Justification (1) Slightly Justified (2) Moderately Justified (3) Substantially Justified

Practical Paper 2: Computer Programming-II			
Code PSP2CRP0119			
CO No.	Course outcomes	PSOs Addressed	Cognitive Level
CO-1	Solve problems through writing Python & MATLAB programs.	PSO 2	Ap
CO-2	Develop Python & MATLAB programs from specifications and document those programs in a style permitting the maintaining and altering of the programs by a third party.	PSO 2,3	C
CO-3	Use GIS to present the findings in related areas with clarity.	PSO 2,3	C

	PO 1	PO 2	PO 3	PO 4	PSO 1	PSO 2	PSO 3
CO 1	-	2	-		-	2	-
CO 2	-	2	-	2	-	2	2
CO 3	-	2	-	2	-	2	2
AVG CO	-	2	-	2	-	2	2

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Major Core 11: Atmospheric Dynamics			
Code PSP3CRT0119			
CO No.	Course outcomes	PSOs Addressed	Cognitive Level
CO-1	Understand the use of potential vorticity thinking to diagnose and interpret atmospheric flow and instabilities	PSO 1	U
CO-2	Understand the basics of wave-mean-flow interactions, wave breaking, and the Eliassen-Palm flux	PSO 1	U
CO-3	Able to describe and discuss different types of baroclinic instability using quasi-geostrophic theory	PSO 1	An

	PO 1	PO 2	PO 3	PO 4	PSO 1	PSO 2	PSO 3
CO 1	3	-	-	-	3	-	-
CO 2	3	-	-	-	3	-	-
CO 3	-	-	2	-	-	2	-
AVG CO	3	-	2	-	3	2	-

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Major Core 12: Climatology-Tropical and Global			
Code PSP3CRT0219			
CO No.	Course outcomes	PSOs Addressed	Cognitive Level
CO-1	Critically analyse the interactions between the atmosphere and the surface (topography, vegetation, built structures), and apply this understanding in an environmental decision making context.	PSO 2,3	An
CO-2	Apply an understanding of synoptic processes and the ability to interpret a range of graphical and visual data to the explanation of weather events and forecasting.	PSO 2	An
CO-3	Analyse and interpret the relationships between large-scale ocean-atmosphere processes and regional-local climates, using simple statistical techniques.	PSO 2	An
CO-4	Synthesise their understanding of climate processes at a range of scales to explain and critique the applications of climate modelling in research and policy contexts.	PSO 2	E

	PO 1	PO 2	PO 3	PO 4	PSO 1	PSO 2	PSO 3
CO 1	2	2	2	-	-	2	1
CO 2	-	2	1	-	-	1	-
CO 3	1	2	1	-	-	2	-
CO 4	1	2	-	-	-	2	-
AVG CO	1.3	2	1.3			1.75	1

(-)No Justification (1) Slightly Justified (2) Moderately Justified (3) Substantially Justified

Major Core 13: Synoptic Meteorology and Satellite Meteorology			
Code PSP3CRT0319			
CO No.	Course outcomes	PSOs Addressed	Cognitive Level
CO-1	Skills for interpreting and applying atmospheric observations.	PSO 2	E
CO-2	Knowledge of the atmosphere and its evolution.	PSO 1	U
CO-3	Mastery of the fundamental principles governing the atmosphere and the characteristic atmospheric processes across spatial and temporal scales.	PSO 1	U

	PO 1	PO 2	PO 3	PO 4	PSO 1	PSO 2	PSO 3
CO 1	2	2	-	-	-	2	-
CO 2	3	-	-	-	3	-	-
CO 3	3	-	-	-	3	-	-
AVG CO	2.6	2	-	-	3	2	-

(-)No Justification (1) Slightly Justified (2) Moderately Justified (3) Substantially Justified

Major Core 14: Astronomy and Astrophysics			
Code PSP3CRT0419			
CO No.	Course outcomes	PSOs Addressed	Cognitive Level
CO-1	A broad knowledge of fundamental physical laws applying to the world at scales ranging from the nuclear to the cosmological.	PSO 1	U
CO-2	Comprehend, apply, and analyze the most important scientific models governing modern astrophysics and be familiar with the astronomical objects studied by astronomers.	PSO 2,3	An
CO-3	Explain the meaning and significance of the postulate of Special Relativity, true nature of Lorentz transformation and Doppler effect, relativistic momentum and Einstein field equations.	PSO 1, 2	An

	PO 1	PO 2	PO 3	PO 4	PSO 1	PSO 2	PSO 3
CO 1	3	-	-	-	3	-	-
CO 2	2	1	2	1	1	2	-
CO 3	3	1	-	-	2	1	-
AVG CO	2.6	1	2	1	2	1.5	-

(-)No Justification (1) Slightly Justified (2) Moderately Justified (3) Substantially Justified

Major Core 15: Atmospheric Chemistry and Atmospheric Electricity			
Code		PSP3CRT0519	
CO No.	Course outcomes	PSOs Addressed	Cognitive Level
CO-1	Predict fate of molecules and radicals under typical atmospheric conditions.	PSO 1,2	An
CO-2	Explain basic principles of greenhouse effect and compute global warming potentials.	PSO 1	Ap
CO-3	Qualitatively explain and quantitatively compute trends in photolysis rate constants with altitude, season, and time of day for molecules whose photochemistry is known.	PSO 1,2	Ap
CO-4	Appreciation of the elementary quantities of atmospheric electrostatics including fields, currents, conductivity and frequency spectra.	PSO 1,2	U
CO-5	An understanding of the global electric circuit and the ability to calculate the transfer of charge in both storm time and fair weather conditions.	PSO 1	Ap

	PO 1	PO 2	PO 3	PO 4	PSO 1	PSO 2	PSO 3
CO 1	1	1	-	-	2	1	-
CO 2	2	-	2	-	2	-	-
CO 3	-	2	2	-	1	2	-
CO 4	2	-	-	-	1	2	-
CO 5	1	1	-	-	2	-	-
AVG CO	1.5	1.3	2	-	1.6	1.6	-

(-)No Justification (1) Slightly Justified (2) Moderately Justified (3) Substantially Justified

Practical Paper III: Atmospheric Sciences			
Code PSP3CRP0619			
CO No.	Course outcomes	PSOs Addressed	Cognitive Level
CO-1	Skills for interpreting and applying atmospheric observations.	PSO 2,3	E
CO-2	Describe, analyze and create graphical depictions of meteorological information.	PSO 2,3	An
CO-3	Access atmosphere science information from a variety of sources, evaluate the quality of this information, and compare this information with current models of meteorological processes identifying areas of congruence and discrepancy.	PSO 2,3	E

	PO 1	PO 2	PO 3	PO 4	PSO 1	PSO 2	PSO 3
CO 1	-	2	2	1	-	2	2
CO 2	-	2	3	-	-	2	1
CO 3	1	2	-	-	-	1	1
AVG CO	1	2	2.5	1	-	1.6	1.3

(-)No Justification (1) Slightly Justified (2) Moderately Justified (3) Substantially Justified

Major Core 16: Space Plasma			
Code		PSP4CRT0119	
CO No.	Course outcomes	PSOs Addressed	Cognitive Level
CO-1	Calculate fundamental properties of a plasma given appropriate information	PSO 1,2	Ap
CO-2	Apply basic electromagnetism to derive the kinetic theory of plasmas	PSO 1,2	Ap
CO-3	Use kinetic theory to explain the motions of charged particles in the ionosphere and near- Earth space	PSO 2	Ap

	PO 1	PO 2	PO 3	PO 4	PSO 1	PSO 2	PSO 3
CO 1	-	2	1	-	1	1	-
CO 2	-	2	1	-	1	1	-
CO 3	1	1	1	-	-	1	-
AVG CO	1	1.6	1	-	1	1	-

(-)No Justification (1) Slightly Justified (2) Moderately Justified (3) Substantially Justified

Elective Paper 17: Space Plasma			
Code PSP4CRT0219			
CO No.	Course outcomes	PSOs Addressed	Cognitive Level
CO-1	Learn about the history of formation of the Sun and its future evolution.	PSO 1	U
CO-2	Understand the processes of energy production and transfer in the Sun, structure of solar atmosphere, corona and solar wind, generation and evolution of solar magnetic fields, physics behind solar cycle, solar seismology and solar storms.	PSO 1	U
CO-3	Learn about current and past solar space missions as well ground observatories and will apply your knowledge to study various aspects of the Sun using real data.	PSO 1,2	Ap

	PO 1	PO 2	PO 3	PO 4	PSO 1	PSO 2	PSO 3
CO 1	3	-	-	-	3	-	-
CO 2	3	-	-	-	3	-	-
CO 3	2	1	-	-	1	-	-
AVG CO	2.6	1			2.3		

(-)No Justification (1) Slightly Justified (2) Moderately Justified (3) Substantially Justified

Elective Paper II : Space Dynamics			
Code PSP4CRT0419			
CO No.	Course outcomes	PSOs Addressed	Cognitive Level
CO-1	Understand the basics of Orbital Mechanics.	PSO 1	U
CO-2	Full understanding of conic sections and fundamental orbit equations of motion.	PSO 1	U
CO-3	Understanding of the fundamentals of spacecraft attitude dynamics.	PSO 1	U

	PO 1	PO 2	PO 3	PO 4	PSO 1	PSO 2	PSO 3
CO 1	3	-	-	-	3	-	-
CO 2	3	-	-	-	3	-	-
CO 3	3	-	-	-	3	-	-
AVG CO	3	-	-	-	3	-	-

(-)No Justification (1) Slightly Justified (2) Moderately Justified (3) Substantially Justified

Practical Course IV			
Course Title : Experiments for Astronomy and Astrophysics			
Code PSP4CRP0119			
CO No.	Course outcomes	PSOs Addressed	Cognitive Level
CO-1	Plan and execute experimental investigations of physical processes using both standard and advanced bench and astronomical equipment, of complex physical systems or processes, demonstrating logic, initiative, and decision making skills in solving problems encountered.	PSO 2	E
CO-2	Evaluate random and systematic uncertainties inherent in experimental measurements.	PSO 2	E

	PO 1	PO 2	PO 3	PO 4	PSO 1	PSO 2	PSO 3
CO 1	1	3	1	1	1	3	1
CO 2	-	1	-	-	-	1	-
CO 3							
AVG CO	1	2	1	1	1	2	1

(-)No Justification (1) Slightly Justified (2) Moderately Justified (3) Substantially Justified

Practical Course V Course Title : Laboratory for plasma			
Code PSP4CRP0219			
CO No.	Course outcomes	PSOs Addressed	Cognitive Level
CO-1	Acquires knowledge of the various plasma diagnostics technique	PSO 1	U
CO-2	Plan and execute experimental investigations to analyse different aspects of plasma nature.	PSO 2	An
CO-3	Evaluate random and systematic uncertainties inherent in experimental measurements.	PSO 2	E

	PO 1	PO 2	PO 3	PO 4	PSO 1	PSO 2	PSO 3
CO 1	2	-	-	-	2	-	-
CO 2	-	2	1	1	-	2	2
CO 3	-	1	-	-	-	1	-
AVG CO	2	1.5	1	1	2	1.5	2

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Project/Dissertation			
Code PSP4CPRO119			
CO No.	Course outcomes	PSOs Addressed	Cognitive Level
CO-1	Develop a research question, problem, or design.	PSO 1	C
CO-2	Apply basic principles and knowledge found in the literature related to the research question.	PSO 2	Ap
CO-3	Develop a research proposal to address or resolve a specific research question or problem.	PSO 2	C
CO-4	Apply and evaluate methodology throughout the project	PSO 2	E
CO-5	Collect, interpret, and critique data to resolve a research question or evaluate a design.	PSO 2	E
CO-6	Communicate research findings.	PSO 2	C
CO-7	Appreciate what the process of scientific research entails.	PSO 3	U

	PO 1	PO 2	PO 3	PO 4	PSO 1	PSO 2	PSO 3
CO 1	1	1	-	2	1	-	2
CO 2	-	2	1	2	-	2	2
CO 3	-	-	3	-	-	2	2
CO 4		2	-	1	-	2	2
CO 5	1	3	-	-	-	2	2
CO 6	-	-	3	-	-	2	2
CO 7	-	-	-	3	-	-	-
AVG CO	1	2	2.3	2	1	2	2

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Course Title : Course Viva			
Code PSP4CRVO119			
CO No.	Course outcomes	PSOs Addressed	Cognitive Level
CO-1	Demonstrate knowledge in the program domain.	PSO 1	U
CO-2	Communicate their views cogently and precisely.	PSO 2	C
CO-3	Exhibit professional etiquette suitable for career progression.	PSO 2	E

	PO 1	PO 2	PO 3	PO 4	PSO 1	PSO 2	PSO 3
CO 1	2	-	-	-	2	-	-
CO 2	-	-	3	-	-	2	-
CO 3	-	-	3	-	-	2	-
AVG CO	2	-	3		2	2	-

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Name of the course with course code	PO 1	PO 2	PO 3	PO 4	PSO 1	PSO 2	PSO 3
PSP1CRT0119 - Fundamentals of atmospheric and Space sciences	1	1	-	-	2	1	-
PSP1CRT0219 - Classical mechanics	2	2	1	-	1.5	2	-
PSP1CRT0319 - Quantum mechanics	2.5	3	-	-	2	3	-
PSP1CRT0419 - Mathematical and statistical methods	2	2.5	-	-	2	2.5	-
PSP1CRT0519 - Numerical methods and computer programming	1	2.3	-	3	1.5	2	-
PSP1CTP0119 - Computer programming I	-	3	-	1	-	3	1
PSP2CRT0119 - Fundamentals of earth sciences and Remote sensing	3	-	-	1	3	-	-
PSP2CRT0219 - Statistical mechanics	2	2	-	-	2	2	-
PSP2CRT0319 - Electrodynamics	2	1	-	-	2	2	-

PSP2CRTO419 - Introduction to plasma physics and space physics	2	2	-	1	2	2	1
PSP2CRTO519 - Advanced computer programming	1	2	-	1.6	1	2	2.6
PSP2CRPO119 - Computer programming II	-	2	-	2	-	2	2
PSP3CRTO119 - Atmospheric dynamics	3	-	2	-	3	2	-
PSP3CRTO219 - Climatology-Tropical and Global	1.3	2	1.3	-	-	1.75	1
PSP3CRTO319 - Synoptic meteorology and Satellite meteorology	2.6	2	-	-	3	2	-
PSP3CRTO419 - Astronomy and Astrophysics	2.6	1	2	1	2	1.5	-
PSP3CRTO519 - Atmospheric chemistry and Atmospheric Electricity	1.5	1.3	2	-	1.6	1.6	-
PSP3CRPO619 - Atmospheric sciences	1	2	2.5	1	-	1.6	1.3
PSP4CRTO119 - Space plasma	1	1.6	1	-	1	1	-

PSP4CRTO219 - Elective I- Solar physics	2.6	1	-	-	2.3	-	-
PSP4CRTO219 - Elective II- Space dynamics	3	-	-	-	3	-	-
PSP4CRPO119 - Experiments for Astronomy and Astrophysics	1	2	1	1	1	2	1
PSP4CRPO219 - Laboratory for plasma	2	1.5	1	1	2	1.5	2
PSP4CPRO119 - Project/Dissertation	1	2	2.3	2	1	2	2
PSP4CRVO119 - Course Viva	2	-	3	-	2	2	-
Average Course Outcome	1.87	1.86	1.73	1.42	1.95	1.93	1.54

(-)No Justification (1) Slightly Justified (2) Moderately Justified (3) Substantially Justified



St. Albert's College (Autonomous)

An initiative of Educational and Charitable Trust of Archdiocese of Verapoly

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