

# ALL SAINTS' COLLEGE

Affiliated to University of Kerala, Thiruvananthapuram

https://www.allsaintscollege.ac.in

# CRITERIA-6 GOVERNANCE, LEADERSHIP & MANAGEMENT

## 6.5.1 OUTCOME BASED EDUCATION

UL SAINTS' COLLEGE

## **Department of Physics** All Saints College, Thiruvananthapuram

## **Report on attainment of Programme Outcomes BSc Physics (2019-2022)**

Threshold limit for the attainment of Programme outcomes

- The level of attainment is marked 'high' when at least 25% of the students
- obtain at least 75% of COs
- The level of attainment is marked 'moderate' when at least 70% of the students obtain at least 60% of COs
- The level of attainment is marked 'low' when at least 80% of the students obtain at least 40% of COs
- The assessments considered are End Semester Assessment (ESA) and Continuous Evaluation (CE)
- The level of attainment of Program Outcome is shown as either '1' or '2' or '3' against each of the PO of the respective course which is marked as 'low', 'moderate' or 'high'.
- It is considered that if the Program Outcome is below 1, the respective Program Outcome has not been attained.

Dr. ANJANA P.S tent Prof tment of Phys All Saints' College Thiruvananthapuram • 07 Kerala

82

IQAC CO-ORDINATOR ALL SAINTS' COLLEGE THIRUVANANTHAPURAM-7

estimi

Principal All Saints' College Thiruvananthapuram-7



## Process involved in CO-PO Mapping



The role of CO-PO mapping will be assigned to the faculty as per hierarchy. After the course (subject) allotment from the department, the teacher in-charge of the course has to write appropriate COs for their corresponding course. It should be narrower and measurable statements. By using the action verbs of learning levels, CO's will be designed. CO statements should describe what the students are expected to know and able to do at the end of each course, which are related to the skills, knowledge and behaviour that students will acquire through the course.

After writing the CO statements, CO will be mapped with PO of the department. The CO statements and the CO-PO mapping which has been done by teacher in-charge will be reviewed by the Head of the Department. The teacher in charge will consolidate and maintain the year wise reports of the CO attainment level of the individual students for the various courses. These details will hand over to the concerned in order to evaluate PO attainment of the individual student as well as individual course at the end of the sixth semester. The PO attainment of individual student through direct method will be evaluated once the student completes her program. All these works have to be done under the guidance of IQAC.

# Method for Assessment, Evaluation and Measurement of POs - Direct Assessment methods

**Continuous Assessment:** COs are assessed through Sessional & Assignment Examinations. The COs are mapped against each question and CO analysis is carried out by faculty for each course and documented. The contribution of COs are assessed in high, moderate and low levels, towards the attainment of POs/PSOs.

Semester-end Theory Examinations: The questions in semester-end examinations are tested pertaining to all COs, in varying Blooms Taxonomy Levels.

Dr. ANJANA P.S. Assistant Professor and Head Research Supervisor Department of Physics All Saints' College Thirovananthapuram - 07

ALL SAINTS' COLLEC

Principal All Saints' College Thiruvananthapuram-7



### The attainment is as follows

Course	PO1	PO2	PO3	PO4	PO5	DOG
PY1141	3.00	3.00	3.00		FUS	POG
PY1241	3.00	3.00	3.00			
PY1341	3.00	3.00			-	-
PY1441	3.00	3.00	3.00			3.00
PY1442	1			2.79	- 14 MA	5.00
PY1541	3.00	3.00	3.00			3.00
PY1542	3.00		3.00			3.00
PY1543	3.00	3.00	3.00	3.00		
PY1544	3.00	3.00				
PY1641	3.00	3.00	3.00			
PY1642	3.00	3.00	3.00			3.00
PY1643	3.00	3.00	3.00			
PY1644	3.00	3.00			Sec. 1	3.00
PY1661				3.00	3.00	
PY1645				2.84		2.84
PY1646			San End	2.82		2.82
PY1647					2.82	1 1 1
Average	3.00	3.00	3.00	2.89	2.91	2.95



Aut 83

Dr. ANJANA P.S. Assistant Professor and Head Research Supervisor Department of Physics All Saints' College Thiruvananthapuram - 07



IQAC CO-ORDINATOR ALL SAINTS' COLLEGE THIRUVANANTHAPURAM-7

Restani Principal

All Saints' College Thiruvananthapuram-7



# Threshold limit for the attainment of course outcomes

# Computation and Attainment of Course Outcome:

Threshold limit for the attainment of course outcomes is set as follows

- The level of attainment of the all Course Outcome is deemed to be the "High" when the 25% of the class score an average of 75% of marks of all three summative assessments (CE+ ESE).
- The level of attainment of the all Course Outcome (LAACO) is deemed to be the "Moderate" when the 70% of the class scored an average of 60% of marks of all three summative assessments (CE+ ESE).
- The level of attainment of the all Course Outcome (LAACO) is deemed to be the "low" when the 80% of the class scored an average of 40% of marks of all three summative assessments (CE+ ESE).

The level of Attainment of Course Outcome shows as either "1" or "2" or "3" against each of the Course Outcomes of the respective Course.

- if the score of a Course Outcome is above "1" the respective Course Outcome is attained at low level of attainment.
- if the score of a Course Outcome is above "2" the respective Course Outcome is attained at moderate level of attainment.
- if the score of a Course Outcome is "3" the respective Course Outcome is attained at high level of attainment.

Dr. ANJANA P.S. Assistant Professor and Head Research Supervisor Department of Physics All Saints' College

BZ

IQAC CO-ORDINATOR ALL SAINTS' COLLEGE THIRUVANANTHAPURAM-7

estai

Principal All Saints' College Thiruvananthapuram-7



## Report on Course Outcomes attainment and Programme Outcomes attainment

On examining the learning performance of students in CE and ESE of the Odd and Even semester for 2019 – 2022 in terms of Course Outcomes and Programme Outcomes, the following observations are presented for gap analysis

 B Sc Physics 2019-2022 batch have secured 1<sup>st</sup> (High) level of attainment in all 17 courses of study under their programme with an average attainment of 2.96.

Principal

All Saints' College Thiruvananthapuram-7



1-85

Dr. ANJANA P.S. Assistant Professor and Hood Research Supervisor Department of Physics All Saints' College Thiruvananthapuram - 07 Kerala

B

ALL SAINTS' COLLEC THIRUVANANTHAPURA... / Candidate Code: .....

Name: .....

#### All Saints' College, Trivandrum

#### Trivandrum, Kerala

#### **INTERNAL ASSESSMENT**

#### **Basic Mechanics and Properties of Matter (PHY)**

Time: 1 Hrs

Max Mark: 20.00

#### QUESTIONS

1. State and prove parallel and perpendicular axis theorem

[Mark :5] (Blooms Level : 3)

- 2. Define viscosity. Prove Poiseuilles formula
- [ Mark :5 ] ( Blooms Level : 3 ) 3. What is a cantilever and derive the expression for Young's modulus of cantilver.
- [ Mark :5 ] ( Blooms Level : 3 )
- 4. What are SHO? Derive the expression for the time period of compound pendulum [Mark :5] (Blooms Level : 3)

Principal All Saints' College Thiruvananthapuram-7





Dr. ANJANA P.S. Assistant Professor and Head Research Supervisor Department of Physics All Saints' College Thiruvananthapuram - 07 Kerala

85

IQAC CO-ORDINATOR ALL SAINTS' COLLEGE THIRUVANANTHAPURAM-7

Trivandrum Kerala

DEPT:PHY

### CO report at node : CE

Batch: UG PY 19-22

Subject Name:Basic Mechanics and Properties of Matter Code: 2018

#	Student Name	CO1	CO2	CO3	CO4
1	AKHNA S.J	86.88	100.00	94.55	82.60
2	ANJU. S	100.00	100.00	100.00	100.00
3	GOWRI NAIR A S	100.00	100.00	100.00	100.00
4	MAGDALENE XAVIER	66.67	85.00	56.36	100.00
5	NIRUPAMA B GONSALVEZ	79.58	100.00	90.45	100.00
6	JIPHA B N	89.60	73.20	74.11	100.00
7	SANDRA S.S	98.77	98.15	95.96	100.00
8	SONA S	93.53	80.90	85.67	100.00
9		97.10	86.95	96.84	100.00
10		91.67	62.50	90.91	100.00
11	ASWATHY	97.30	95.35	98.87	80.00
	2 HARITHA H. A	95.00	77.50	94.55	100.00
		60.20	92.80	67.93	100.00
-	4 POOJA SUNIL	97.93	96.90	93.24	100.00
-	5 MEKHA. J	100.00	100.00	100.00	100.00
-	6 ADHEENA I SIVAN	91.55	70.00	92.73	78.60
-	17 SOORYA SUNIL	87.70	99.05	92.47	100.00
-	18 ANJALI. J. B	86.88	55.00	89.09	62.60
-	19 GOURI BHADRAN	97.50	100.00	100.00	70.00
-	Dr. ANJANA P.S.	99.60	98.20 AIN	TS COLLEGO	100.00
F	21 AlexiniteEpines	72.35	100.000	87.0	100.00
H	22 ANJALI S	0- 80.08	88.15	3100	100.00
A.	23 RESHMIS	CO-ORDINATO	R	All Samts' C	100.00

1	Student Name	CO1	CO2		1
	SONA MARIYAM		502	CO3	CO4
24	SHYJU	100.00	100.00	100.00	100.00
	Class Strength			25	
No	of student mapped to at least one CO	1		24	
	o of students with CO ue greater than or equal to 75	21	20	21	22
Perc	centage of students with D value greater than 75	87.5	83.33	87.5	91.67
	Average	90.65	90.01	91.34	94.74
	Attainment Level	3.00	3.00	3.00	3.00



Dr. ANJANA P.S. Assistant Professor and Head Research Supervisor Department of Physics All Saints' College Thiruwananthapuram - 07

8s N

IQAC CO-ORDINATOR ALL SAINTS' COLLEGE THIRUVANANTHAPURAM-7

Restani

All Saints' College Thiruvananthapuram.7



Trivandrum Kerala

#### DEPT:PHY

## PO report at node : CE

Batch: UG PY 19-22

Subject Name:Basic Mechanics and Properties of Matter Code: 2018

	#	Student Name	PO1	PO2	PO3	
	1	ANNIE. M	91.67	62.50	95.45	
	2	GOURI BHADRAN	97.50	100.00	85.00	
	3	GOWRI NAIR A S	100.00	100.00	100.00	
	4	HARITHA H. A	95.00	77.50	97.27	
	5	JENNIFER KENNEDY	72.35	100.00	93.54	
	6	NIRUPAMA B GONSALVEZ	79.58	100.00	95.23	
	7	POOJA SUNIL	97.93	96.90	96.62	
	8	RESHMI S	100.00	100.00	100.00	
	9	SANDRA S.S	98.77	98.15	97.98	
	10	ADHEENA I SIVAN	91.55	70.00	85.66	
	11	AJILA B.S	60.20	92.80	83.96	
B	12	ANAINA SEBASTIAN	97.10	86.95	98.42	
$\times$	13	ANJALI J B	86.88	55.00	75.85	
	14	( L, L, C21)003031311-5303115-6	100.00	100.00	100.00	Restar
Research Sup	ervisof	ASVAIL	97.30	95.35		norpas
All Saints' C hiruvananthan Keral	ouram - (	GEETHU	99.60	98.20	99.78 Thiruvan	anthapural
dit	1	7 MAGDALENE XAVIER	66.67	85.00	78.18	AINTS' COLLE
DAC CO-OR	DINAT	AKHNA S.J	86.88	100.00	88.57	
IRUVANANT	HAPUR	9 ANJALIS	85.83	88.75	95.91	DRUM-7, S.IND

#	Student Name	PO1	PO2	PO3	
0	JIPHA B N	89.60	73.20	87.05	
1	MEKHA. J	100.00	100.00	100.00	
22	SONA MARIYAM SHYJU	100.00	100.00	100.00	
23	SONA S	93.53	80.90	92.84	
24	SOORYA SUNIL	87.70	99.05	96.24	
	Class Strength	1.31.24	25		
ſ	No of student napped to at least one PO		24		
1	No of students with marks greater than or equal to 75	21	20	24	
	Percentage of students with marks greater than 75	87.5	83.33	100	
	Average	90.65	90.01	93.04	
	Attainment Level	3.00	3.00	3.00	



Dr. ANJANA P.S. Assistant Professor and Head Research Supervisor Department of Physics All Saints' College Thiruwananthapuram - 07 Kerala

RS

IQAC CO-ORDINATOR ALL SAINTS' COLLEG. THIRUVANANTHAPURAM-7

Restini

Principal All Saints' College Thiruvananthapuram-7



Candidate Code: ..... Name: .....

All Saints' College, Trivandrum

Trivandrum, Kerala

INTERNAL ASSESSMENT

#### Nuclear and Particle Physics (PHY)

Time: 1 Hrs

### Max Mark: 20.00

#### QUESTIONS

1. Explain mirror nuclei.

[Mark :5] (Blooms Level : 4)

2. Derive the expression for alpha disintegration energy.

- 3. What is the critical size in nuclear fission reaction?
- 4. Illustrate the working of GM Counter.

[Mark :5] (Blooms Level : 4)

[Mark :5] (Blooms Level : 4)

[Mark :5] (Blooms Level : 4)



Dr. ANJANA P.S. Assistant Professor and Head Research Supervisor Department of Physics All Saints' College Thiruvananthapuram - 07 Kerala



IQAC CO-ORDINATOR ALL SAINTS' COLLEGE THIRUVANANTHAPURAM-7

Frincipal All Saints' College Thiruvananthapuram-7



#### PY 1642

Trivandrum Kerala

DEPT:PHY

CO report at node : CE

Batch: UG PY 19-22

Subject Name:Nuclear and Particle Physics Code: 2018

	Student Name	CO1	CO2	CO3	CO4	CO5
	NIRUPAMA B GONSALVEZ	100.00	100.00	99.00	90.00	90.00
2	ANAINA SEBASTIAN	99.09	92.00	99.00	100.00	100.00
3	AKHNA S.J	83.18	94.00	99.50	100.00	100.00
4	ANJALI. J. B	78.18	78.00	63.50	75.00	75.00
5	ANJALI S	98.18	98.00	84.00	100.00	100.00
6	POOJA SUNIL	83.64	98.00	99.00	90.00	90.00
7	JIPHA B N	72.27	61.50	62.00	80.00	80.00
8	ANNIE. M	96.36	96.00	67.00	90.00	90.00
9	ANJU. S	100.00	100.00	100.00	100.00	100.00
10	GOURI BHADRAN	98.18	84.00	98.00	100.00	100.00
11	RESHMI S	100.00	100.00	100.00	100.00	100.00
12	MEKHA. J	100.00	100.00	100.00	100.00	100.00
13	GOWRI NAIR A S	100.00	100.00	100.00	100.00	100.00
14	SANDRA S.S	100.00	100.00	100.00	100.00	100.00
15	ASWATHY REGHUNATH	100.00	100.00	100.00	100.00	100.00
16	ADHEENA I SIVAN	83.64	98.00	100.00	100.00	100.00
17	7 GEETHU SYAM S	100.00	100.00	100.00	100.00	100.00
18	3 SONA MARIYAM SHYJU	100.00	100.00	100.00	100.00	100.00
19	DF ANIANA PS	100.00	100.00	100.00	100.00	100.00
20	Department of Physics Sell Samuel College	99.55	99.50	100.00	EGE to 00	100.00
2.	Korala	100.00	100.00	5 100.00	30.00	100.00
2	2 SOOBYA-SUNIL	100.00	100.00	100.00	15/10000 P	100.00
0	2-X	QAC CO-ORDI	NATON	IRIVANIOR	Principal Saints' Colleg	zò

Student Name	CO1	CO2	CO3	CO4	CO5			
JENNIFER KENNEDY	87.73	98.50	100.00	100.00	100.00			
4 AJILA B.S	93.18	68.00	64.50	100.00	100.00			
Class Strength	24							
lo of student mapped to at least one CO	24							
No of students with CO value greater than or equal to 75	23	22	20	24	24			
Percentage of students with CO value greater than 75	95.83	91.67	83.33	100	100			
Average	94.72	94.4	92.98	96.88	96.88			
Attainment Level	3.00	3.00	3.00	3.00	3.00			



Dr. ANJANA P.S. Assistant Professor and Head Research Supervisor Department of Physics All Saints' College Thicuranatha.puram - 07

IQAC CO-ORDINATOR ALL SAINTS' COLLEGE THIRUVANANTHAPURAM-7

Reshini

Principal All Saints' College Thiruvananthapuram-7



Trivandrum Kerala

## DEPT:PHY

## PO report at node : CE

Batch: UG PY 19-22

Subject Name:Nuclear and Particle Physics Code: 2018

Г	#	Student Name	PO1	PO3	PO2	PO6
-		ANNIE. M	93.82	96.00	67.00	90.00
T	2	GOURI BHADRAN	98.91	84.00	98.00	100.00
F	3	GOWRI NAIR A S	100.00	100.00	100.00	100.00
	4	HARITHA H. A	100.00	100.00	100.00	100.00
	5	JENNIFER KENNEDY	92.64	98.50	100.00	100.00
	6	NIRUPAMA B GONSALVEZ	96.00	100.00	99.00	90.00
	7	POOJA SUNIL	86.18	98.00	99.00	90.00
	8	RESHMI S	100.00	100.00	100.00	100.00
	9	SANDRA S.S	100.00	100.00	100.00	100.00
	10	ADHEENA I SIVAN	90.18	98.00	100.00	100.00
	11	AJILA B.S	95.91	68.00	64.50	100.00
/	12	ANAINA SEBASTIAN	99.45	92.00	99.00	100.00
	13	ANJALI. J. B	76.91	78.00	63.50	75.00
	14	ANJU. S	100.00	100.00	100.00	100.00
NJA Profe		REGHUNATH	100.00	100.00	100.00	100.00 De hour
aints nanth Kers	of Pi Colle aptire	GEETHU SYAM	100.00	100.00	100.00	100.00 Res Louis 100.00 Principal All Saints' Col
X	17		100.00	100.00	100.00	100.00 Thiruvananthap
DOR'	COL	ATÖR AKENA S.J	89.91	94.00	99.50	100.00 SAINTS' COLLEC
IANT	HAP 19	ANJALI S	98.91	98.00	84.00	100.00

Res Loui Principal

ANDRUM-

#	Student Name	PO1	PO3	PO2	PO6
20	JIPHA B N	75.36	61.50	62.00	80.00
1	MEKHA. J	100.00	100.00	100.00	100.00
2	SONA MARIYAM SHYJU	100.00	100.00	100.00	100.00
23	SONA S	99.73	99.50	96.00	100.00
24	SOORYA SUNIL	100.00	100.00	100.00	100.00
	Class Strength		2	24	
r	No of student mapped to at least one PO		2	24	
	No of students with marks greater than or equal to 75	24	22	20	24
T	Percentage of students with marks greater than 75	100	91.67	83.33	100
1			94.4	92.98	96.88
ł	Average	95.58	94.4	02.00	00.00



Dr. ANJANA P.S. Assistant Professor and Head Research Supervisor Department of Physics All Saints' College Thiruvananthapuram - 07 Kerala

QS. C

IQAC CO-ORDINATOR ALL SAINTS' COLLEG. THIRUVANANTHAPURAM-?

Restari

Principal All Saints' College Thiruvananthapuram.



1