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(ÁéAiÄÄvÄÛ)
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ST ALOYSIUS COLLEGE(AUTONOMOUS)
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Re-accredited by NAAC with 'A' Grade with CGPA 3.62/4

Recognised by UGC as "College with Potential for Excellence"

Conferred "College with "STAR STATUS" by DBT, Government of India.

Centre for Research Capacity Building under UGC-STRIDE

Date: 17-08-2022

NOTIFICATION

Sub: Syllabus of **B.Sc. PHYSICS** under NEP Regulations, 2021.
(As per Mangalore University guidelines)

- Ref: 1. Decision of the Academic Council meeting held on 18-12-2021 vide
Agenda No: 6.23 (2021-22)
2. Decision of the Academic Council meeting held on 09-07-2022 vide
Agenda No: 14
3. Office Notification dated 21-02-2022
4. Office Notification dated 17-08-2022

Pursuant to the above, the Syllabus of **B.Sc. PHYSICS** under NEP Regulations, 2021 which was approved by the Academic Council at its meeting held on 18-12-2021, 09-07-2022 & 25-02-2023 is hereby notified for implementation with effect from the academic year **2021-22**.

Arunachal

PRINCIPAL

To:

1. The Chairman/Dean/HOD
2. The Registrar Office
3. Library



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REGISTRAR

Course Structure – B.Sc. Physics

3 Years B.Sc. Course with Physics as one of the major subject and open Electives according to National education policy(2020)

Semester	Discipline core (DC) Subject	Subject code	Theory hours/ week	Practical hours/ week	Duration of exams (Hours)	Marks and Credits			
						Exam	IA	Total	Credits
I	Mechanics and Properties of Matter	G501 DC1.1	4		2.5	60	40	100	4
I	Practical-Lab	G501 DC2.1P		4	4	25	25	50	2
I	Electrical Circuits and Wiring	G501 OE1.1	3		2.5	60	40	100	3
II	Electricity and Magnetism	G501 DC1.2	4		2.5	60	40	100	4
II	Practical-Lab	G501 DC2.2P		4	4	25	25	50	2
II	Renewable Energy and Energy Harvesting	G501 OE1.2	3		2.5	60	40	100	3
III	Waves and Optics	G501 DC1.3	4		2.5	60	40	100	4
III	Practical-Lab	G501 DC2.3P		4	4	25	25	50	2
III	Fundamentals of Optics and Electricity	G501 OE1.3	3		2.5	60	40	100	3
IV	Thermal Physics and Electronics	G501 DC1.4	4		2.5	60	40	100	4
IV	Practical-Lab	G501 DC2.4P		4	4	25	25	50	2
IV	Financial Education and Investment Awareness		3		2.5	30	20	50	



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Date: 17-08-2022

NOTIFICATION

Sub: Syllabus of **B.Sc. COMPUTER SCIENCE** under NEP Regulations, 2021.
(As per Mangalore University guidelines)

- Ref: 1. Decision of the Academic Council meeting held on 18-12-2021 vide
Agenda No: 6.25(2021-22)
2. Decision of the Academic Council meeting held on 09-07-2022 vide
Agenda No: 14
3. Office Notification dated 21-02-2022
4. Office Notification dated 17-08-2022

Pursuant to the above, the Syllabus of **B.Sc. COMPUTER SCIENCE** under NEP Regulations, 2021 which was approved by the Academic Council at its meeting held on 18-12-2021 & 09-07-2022 is hereby notified for implementation with effect from the academic year 2021-22.

PRINCIPAL



REGISTRAR

To:

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3. Library

Syllabus Structure of Computer Science Paper as one of the major papers and open elective papers for BSc (Computer Science).

Subject Code	sem	subject	Theory hours/week	Practical hours/week	Duration of exams	Marks and credits			
						IA	Exam	Total	Credits
G505DC1.1	I	Computer Fundamentals and Programming in C	4		03	40	60	100	4
G505DC1.1P	I	C Programming Lab		4	02	25	25	50	2
G505OE1.1	I	Office Automation	3		03	40	60	100	3
G505DC2.2	II	Data Structures using C	4		03	40	60	100	4
G505DC2.2P	II	Data Structures Lab		4	03	25	25	50	2
G505OE2.2	II	Web Designing	3		03	40	60	100	3

Curriculum Structure

Program: B.Sc. (Basic and Honors)

Subject: Computer Science

Sem	Discipline Specific Core Courses (DSC)	Hours/Week		Discipline Specific Elective Courses (DSE)/ Vocational Courses (VC)	Hours/Week
		Theory	Lab		
1	DSC-1: Computer Fundamentals and Programming in C DSC-1Lab: C Programming Lab	4	4		
2	DSC-2: Data Structures using C DSC-2Lab: Data structures Lab	4	4		
3	DSC-3: Object Oriented Programming Concepts and Programming in JAVA DSC-3Lab: JAVA Lab	4	4		
4	DSC-4: Database Management Systems DSC-4Lab: DBMS Lab	4	4		
5	DSC-5: Programming in PYTHON DSC-6: Operating System Concepts DSC-5Lab: PYTHON Programming lab DSC-6Lab: Operating System lab	3 3	4 4	VC-1: Any one from Vocational Courses, Group – 1*	3
6	DSC-7: Internet Technologies DSC-8: Computer Networks DSC-7Lab: JAVA Script, HTML, CSS Lab DSC-8Lab: Computer Networks Lab	3 3	4 4	VC-2: Any one from Vocational Courses, Group – 2* Internship:	3
7	DSC-9: Computer Graphics and Visualization DSC-10: Design and Analysis of Algorithms DSC-11: Software Engineering DSC-9Lab: Computer Graphics and Visualization Lab DSC-10Lab: Algorithms Lab	3 3 3	4 4	DSE-1: Any one from Discipline Specific Elective Courses, Group – 1** DSE-2: Any one from Discipline Specific Elective Courses, Group – 2** Research Methodology:	3 3 3
8	DSC-12: Artificial Intelligence and Applications DSC-13: Computer Organization and Architecture DSC-14: Data Warehousing and Data Mining	3 3 3		DSE-3: DSE-4: Any two from Discipline Specific Elective Courses, Group – 3 Research Project:	3 3 6

* Vocational Courses

Group-1

- DTP, CAD and Multimedia
- Hardware and Server Maintenance
- Web Content Management Systems
- E-Commerce
- Web Designing

Group-2

- Health Care Technologies
- Digital Marketing
- Office Automation
- Multimedia Processing
- Accounting Package

** Discipline Specific Elective Courses

Group-1

- IoT
- Cyber Law and Cyber Security
- Web Programming - PHP and MySQL
- Clouds, Grids, and Clusters
- Software Testing

Group-2

- Information and Network Security
- Data Compression
- Discrete Structures
- Open source Programming
- Multimedia Computing
- Big Data

Group-3

- Data Analytics
- Storage Area Networks
- Pattern Recognition
- Digital Image Processing
- Parallel Programming
- Digital Signal Processing

