



Dayananda Sagar Academy of Technology & Management
(Autonomous Institute under VTU)

COMPUTER SCIENCE & ENGINEERING STREAM



Dayananda Sagar Academy of Technology & Management
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Applied Science Course: ASC

1st Semester -Physics Cycle

Applied Science Course: ASC-1						
Course Code	Title	Lecture	Tutorial	Practical	Project	Credits
BMATS101	Engineering Mathematics-1	3	2	0	0	4
BPHYS102	Applied Physics for Computer Science Stream	2	2	2	0	4

1st Semester - Chemistry Cycle

Applied Science Course: ASC-1						
Course Code	Title	Lecture	Tutorial	Practical	Project	Credits
BMATS201	Engineering Mathematics-1	3	2	0	0	4
BCHES202	Applied Chemistry for Computer Science Stream	2	2	2	0	4

2nd Semester – Physics Cycle

Applied Science Course: ASC-2						
Course Code	Title	Lecture	Tutorial	Practical	Project	Credits
BMATS201	Engineering Mathematics-2	3	2	0	0	4
BPHYS202	Applied Physics for Computer Science Stream	2	2	2	0	4

2nd Semester - Chemistry Cycle

Applied Science Course: ASC-2						
Course Code	Title	Lecture	Tutorial	Practical	Project	Credits
BMATS201	Engineering Mathematics-2	3	2	0	0	4
BCHES202	Applied Chemistry for Computer Science Stream	2	2	2	0	4



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Core Engineering Courses (CEC)

1st Semester - Physics Cycle

Core Engineering Courses: CEC-1						
Course Code	Title	Lecture	Tutorial	Practical	Project	Credits
BCECV101	Introduction To Civil Engineering	3	0	0	0	3
BCECV102	Engineering Mechanics	3	0	0	0	3
BCECE103	Introduction to Electrical Engineering	2	2	0	0	3
BCECE104	Elements of Electrical Engineering	2	2	0	0	3
BCECE105	Introduction to Electronics Engineering	3	0	0	0	3
BCECE106	Basic Electronics	2	0	2	0	3
BCECM108	Introduction to Mechanical Engineering	3	0	0	0	3
BCECM107	Elements of Mechanical Engineering	3	0	0	0	3

2nd Semester – Chemistry Cycle

Core Engineering Courses: CEC-2						
Course Code	Title	Lecture	Tutorial	Practical	Project	Credits
BCECV201	Introduction To Civil Engineering	3	0	0	0	3
BCECV202	Engineering Mechanics	3	0	0	0	3
BCECE203	Introduction to Electrical Engineering	2	2	0	0	3
BCECE204	Elements of Electrical Engineering	2	2	0	0	3
BCECE205	Introduction to Electronics Engineering	3	0	0	0	3
BCECE206	Basic Electronics	2	0	2	0	3
BCECM208	Introduction to Mechanical Engineering	3	0	0	0	3
BCECM207	Elements of Mechanical Engineering	3	0	0	0	3



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Engineering Science Course: ESC

1st Semester -Physics Cycle

Engineering Science Course: ESC-1						
Course Code	Title	Lecture	Tutorial	Practical	Project	Credits
BESCS101	Principles of Programming using C	2	0	2	0	3
BESCM102	Computer Aided Engineering Drawing	2	0	2	0	3

2nd Semester – Chemistry Cycle

Engineering Science Course: ESC-2						
Course Code	Title	Lecture	Tutorial	Practical	Project	Credit
BESCM202	Computer Aided Engineering Drawing	2	0	2	0	3



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Emerging Technology Course: ETC

1st Semester -Physics Cycle

Emerging Technology Course-1 : ETC-1						
	Title	Lecture	Tutorial	Practical	Project	Credit
BETCV101	Smart Materials and Systems	3	0	0	0	3
BETCE102	Introduction to Embedded Systems	2	0	2	0	3
BETCS103	Introduction to IOT	2	0	0	2	3
BETCS104	Introduction to Cyber Security	3	0	0	0	3

2nd Semester – Chemistry Cycle

Emerging Technology Course -2 : ETC -2						
	Title	Lecture	Tutorial	Practical	Project	Credits
BETCV201	Smart Materials and Systems	3	0	0	0	3
BETCE202	Introduction to Embedded Systems	2	0	2	0	3
BETCS203	Introduction to IOT	2	0	0	2	3
BETCS204	Introduction to Cyber Security	3	0	0	0	3



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Programming Language Courses: PLC

1st Semester -Physics Cycle

Programming Language Courses: PLC-1						
	Title	Lecture	Tutorial	Practical	Project	Credits
BPLCS101	Introduction to Python Programming	2	0	2	0	3
BPLCS102	Basics of Java Programming	2	0	2	0	3
BPLCS103	Object Oriented Programming using C++	2	0	2	0	3

1st Semester – Chemistry Cycle

Programming Language Courses: PLC -1						
	Title	Lecture	Tutorial	Practical	Project	Credits
BPLCS101	Introduction to Python Programming	2	0	2	0	3
BPLCS102	Basics of Java Programming	2	0	2	0	3
BPLCS103	Object Oriented Programming using C++	2	0	2	0	3

2nd Semester -Physics Cycle

Programming Language Courses: PLC -2						
	Title	Lecture	Tutorial	Practical	Project	Credits
BPLCS201	Introduction to Python Programming	2	0	2	0	3
BPLCS202	Basics of Java Programming	2	0	2	0	3
BPLCS203	Object Oriented Programming using C++	2	0	2	0	3

2nd Semester – Chemistry Cycle

Programming Language Courses: PLC-2						
	Title	Lecture	Tutorial	Practical	Project	Credits
BPLCS201	Introduction to Python Programming	2	0	2	0	3
BPLCS202	Basics of Java Programming	2	0	2	0	3
BPLCS203	Object Oriented Programming using C++	2	0	2	0	3



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Ability Enhancement Course (AEC) / Skill Development Course (SDC)

1st Semester Physics Cycle & Chemistry Cycle

Humanity and Social Science Course: HSSC						
	Title	Lecture	Tutorial	Practical	Project	Credits
BIDTC108	Innovation Design & Thinking	1	0	0	0	1

2nd Semester Physics Cycle & Chemistry Cycle

Humanity and Social Science Course: HSSC						
	Title	Lecture	Tutorial	Practical	Project	Credits
BEEXC208	Engineering Exploration	1	0	0	0	1



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Humanity and Social Science Course: HSSC

1st Semester Physics Cycle

Humanity and Social Science Course: HSSC						
	Title	Lecture	Tutorial	Practical	Project	Credits
BCENC106	Communicative English	1	0	0	0	1
BICNC107	Indian Constitution	1	0	0	0	1

1st Semester Chemistry Cycle

Humanity and Social Science Course: HSSC						
	Title	Lecture	Tutorial	Practical	Project	Credits
BCENC106	Communicative English	1	0	0	0	1
BSBKC107	Samskruthika Kannada	1	0	0	0	1

2nd Semester Physics Cycle

Humanity and Social Science Course: HSSC						
	Title	Lecture	Tutorial	Practical	Project	Credits
BCENC206	Professional writing skills in English	1	0	0	0	1
BICNC207	Indian Constitution	1	0	0	0	1

2nd Semester Chemistry Cycle

Humanity and Social Science Course: HSSC						
	Title	Lecture	Tutorial	Practical	Project	Credits
BCENC206	Professional writing skills in English	1	0	0	0	1
BSBKC207	Samskruthika Kannada	1	0	0	0	1

- The student has to select one course from the Core Engineering Course (CEC) group.
- The students have to opt for the courses from CEC group without repeating the course in either 1st or 2nd semester
- The students must select one course from either ETC-I or PLC-I group.
- 23ESCS11(Principles of Programming using C) course is mandatory in First Semester



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Affiliated to **VTU**
 Approved by **AICTE**
 Accredited by **NAAC** with **A+** Grade
 6 Programs Accredited by **NBA**
 (CSE, ISE, ECE, EEE, MECH, CIVIL)

Scheme of Teaching and Examinations – 2023 Outcome Based Education (OBE) and Choice Based Credit System (CBCS) (Effective from 2023-24)

1st SEMESTER: PHYSICS CYCLE (Computer Science Stream) – Computer Science & Engineering (CSE)

Sl. No	Course Code	Course Title	Course Category	BOS	TD	Teaching Hours/Week					Credits	Examination			
						Lecture	Tutorial	Practical	Project	Total		SEE Duration (Hrs)	CIE Marks	SEE Marks	Total Marks
						L	T	P	S						
1	BMATS101	Engineering Mathematics-1	ASC	MAT	MAT	3	2	0	0	5	4	3	50	50	100
2	BPHYS102	Applied Physics for Computer Science Stream	ASC	PHY	PHY	2	2	2	0	6	4	3	50	50	100
3	BCECE105	Introduction to Electronics Engineering	CEC-1	ECE	ECE	3	0	0	0	3	3	3	50	50	100
4	BESCS101	Principles of Programming using C	ESC	ISE	CSE	2	0	2	0	4	3	3	50	50	100
5	BETCS104	Introduction to Cyber Security	ETC	CSE(AI)	CSE	2	0	0	2	4	3	3	50	50	100
6	BCENC106	Communicative English	HSSC	HSS	HSS	1	0	0	0	1	1	2	50	50	100
7	BICNC107	Indian Constitution	HSSC	MED	MED	1	0	0	0	1	1	2	50	50	100
8	BIDTC108	Innovation and Design Thinking	AEC/SDC	ALD	ALD	1	0	0	0	1	1	2	50	50	100
Total						15	4	4	2	25	20	21	400	400	800

2nd SEMESTER: CHEMISTRTY CYCLE (Computer Science Stream) – Computer Science & Engineering (CSE)

Sl. No	Course Code	Course Title	Course Category	BOS	TD	Teaching Hours/Week					Credits	Examination			
						Lecture	Tutorial	Practical	Project	Total		SEE Duration (Hrs)	CIE Marks	SEE Marks	Total Marks
						L	T	P	S						
1	BMATC201	Engineering Mathematics-2	ASC	MAT	MAT	3	2	0	0	5	4	3	50	50	100
2	BCHES202	Applied Chemistry for Computer Science Stream	ASC	CHE	CHE	2	2	2	0	6	4	3	50	50	100
3	BCECE203	Introduction to Electrical Engineering	CEC-2	EEE	EEE	2	2	0	0	4	3	3	50	50	100
4	BESCM202	Computer Aided Engineering Drawing	ESC	MED	MED	2	0	2	0	4	3	3	50	50	100
5	BPLCS203	Object Oriented Programming using C++	PLC	CSE	CSE	2	0	2	0	4	3	3	50	50	100
6	BCENC206	Professional writing skills in English	HSSC	HSS	HSS	1	0	0	0	1	1	2	50	50	100
7	BSBKC207	Samskruthika Kannada	HSSC	HSS	HSS	1	0	0	0	1	1	2	50	50	100
8	BEEEX208	Engineering Exploration	AEC/SDC	ALD	ALD	0	0	0	2	2	1	2	50	50	100
Total						13	6	6	2	27	20	21	400	400	800

Scheme of Teaching and Examinations – 2023
Outcome Based Education (OBE) and Choice Based Credit System (CBCS)
(Effective from 2023-24)

1st SEMESTER: PHYSICS CYCLE (Computer Science Stream) – Computer Science & Engineering (Data Science)

Sl. No	Course Code	Course Title	Course Category	BO S	TD	Teaching Hours/Week					Credits	Examination			
						Lecture	Tutorial	Practical	Project	Total		SEE Duration (Hrs)	CIE Marks	SEE Marks	Total Marks
						L	T	P	S						
1	BMATS101	Engineering Mathematics-1	ASC	MAT	MAT	3	2	0	0	5	4	3	50	50	100
2	BPHYS102	Applied Physics for Computer Science Stream	ASC	PHY	PHY	2	2	2	0	6	4	3	50	50	100
3	BCECE105	Introduction to Electronics Engineering	CEC-1	ECE	ECE	3	0	0	0	3	3	3	50	50	100
4	BESCS101	Principles of Programming using C	ESC	ISE	CSE(DS)	2	0	2	0	4	3	3	50	50	100
5	BETCS104	Introduction to Cyber Security	ETC	CSE(AI)	CSE (DS)	2	0	0	2	4	3	3	50	50	100
6	BCENC106	Communicative English	HSSC	HSS	HSS	1	0	0	0	1	1	2	50	50	100
7	BICNC107	Indian Constitution	HSSC	MED	MED	1	0	0	0	1	1	2	50	50	100
8	BIDTC108	Innovation Design Thinking	AEC/SDC	ALD	ALD	1	0	0	0	1	1	2	50	50	100
Total						15	4	4	2	25	20	21	400	400	800

2nd SEMESTER: CHEMISTRY CYCLE (Computer Science Stream) – Computer Science & Engineering (Data Science)

Sl. No	Course Code	Course Title	Course Category	BOS	TD	Teaching Hours/Week					Credits	Examination			
						Lecture	Tutorial	Practical	Project	Total		SEE Duration (Hrs)	CIE Marks	SEE Marks	Total Marks
						L	T	P	S						
1	BMATC201	Engineering Mathematics-2	ASC	MAT	MAT	3	2	0	0	5	4	3	50	50	100
2	BCHES202	Applied Chemistry for Computer Science Stream	ASC	CHE	CHE	2	2	2	0	6	4	3	50	50	100
3	BCECM208	Introduction to Mechanical Engineering	CEC-2	MED	MED	3	0	0	0	3	3	3	50	50	100
4	BESCM202	Computer Aided Engineering Drawing	ESC	MED	MED	2	0	2	0	4	3	3	50	50	100
5	BPLCS201	Introduction to Python Programming	PLC	ISE	CSE(DS)	2	0	2	0	4	3	3	50	50	100
6	BCENC206	Professional writing skills in English	HSSC	HSS	HSS	1	0	0	0	1	1	2	50	50	100
7	BSBKC207	Samskruthika Kannada	HSSC	HSS	HSS	1	0	0	0	1	1	2	50	50	100
8	BEEEX208	Engineering Exploration	AEC/SDC	ALD	ALD	0	0	0	2	2	1	2	50	50	100
Total						14	4	6	2	26	20	21	400	400	800