

BSc Degree programme

Applied Science

**Regulations & Syllabi
(under CBCS)**

2018



PSG COLLEGE OF TECHNOLOGY
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Government Aided Autonomous College Affiliated to Anna University, Chennai
Accredited by NAAC with 'A' Grade
ISO 9001:2015 Certified

BSc APPLIED SCIENCE**(2018 Regulations)**

Code No.	Course	Hours/Week				Maximum Marks			
		Lecture	Tutorial	Practical	Credits	CA	FE	Total	CAT
SEMESTER V									
18S501	Operations Research	2	2	-	3	50	50	100	PC
18S502	Probability and Statistics	2	2	-	3	50	50	100	PC
18S503	Solid State Physics	3	-	-	3	50	50	100	PC
18S504	Quantum Mechanics	2	2	-	3	50	50	100	PC
18S505	Applied Chemistry	3	-	-	3	50	50	100	PC
18S506	Analytical Chemistry	3	-	-	3	50	50	100	PC
18S507	Solid State Physics Laboratory	-	-	4	2	100	-	100	PC
18S508	Applied Chemistry Laboratory	-	-	4	2	100	-	100	PC
18OS__	Open Elective	3	-	-	3	50	50	100	OE
Total 32 hrs		18	6	8	25	550	350	900	

SEMESTER VI

18S601	Environmental Science	3	-	-	3	50	50	100	PC
18S0__	Professional Elective I*	3	-	-	3	50	50	100	PE
18S0__	Professional Elective II*	3	-	-	3	50	50	100	PE
18S0__	Professional Elective III*	3	-	-	3	50	50	100	PE
18S0__	Professional Elective IV*	3	-	-	3	50	50	100	PE
18S610	Project Work and Viva Voce	-	-	12	6	50	50	100	EEC
18S0__	Skill Enhancement Course II *	2	2	-	3	50	50	100	SEC
Total 31 hrs		17	2	12	24	350	350	700	

CA - Continuous Assessment

FE - Final Examination

* - All electives in the respective category must be opted from the same cluster

CAT-Category; HS – Humanities & Social Sciences; PC – Professional Core; PE – Professional Elective; OE- Open Elective; SEC – Skill Enhancement Course; MC – Mandatory Course. EEC - Employability Enhancement course

PROFESSIONAL ELECTIVES (PE)

Mathematics and Computer Science Cluster

18S001	Complex Analysis
18S002	Graph Theory
18S003	Abstract Algebra
18S004	Numerical Methods
18S005	Number Theory
18S006	Stochastic Models
18S007	Cyber Security
18S008	Optimization Techniques

Physics Cluster

18S016	Laser Physics and Applications
18S017	Semiconductor Physics and Devices
18S018	Condensed Matter Physics
18S019	Heat and Thermodynamics
18S020	Classical Mechanics and Statistical Physics
18S021	Electrodynamics
18S022	Experimental Techniques in Materials Science
18S023	Linear Integrated Circuits
18S024	Measurement and Instrumentation
18S025	Nanomaterials and Applications
18S026	Science of colour

Chemistry Cluster

18S031	Polymer Chemistry
18S032	Environmental Chemistry
18S033	Applied Electrochemistry
18S034	Chemistry of Nanomaterials
18S035	Corrosion Science and Engineering
18S036	Pharmaceutical Chemistry
18S037	Textile Chemistry and Textile chemical processing
18S038	Industrial Chemistry
18S039	Biochemistry
18S040	Instrumental Methods of Chemical Analysis
18S041	Green Chemistry

SKILL ENHANCEMENT COURSES (SEC)

Mathematics and Computer Science Cluster

18S055	Object Oriented Programming using Java
18S056	Database Management System
18S057	Web Designing
18S058	Enterprise Computing
18S059	Mobile Application Development
18S060	Operating System
18S061	Advanced Data Structures
18S062	Design and Analysis of Algorithms

Physics Cluster

18S070	Measurements for Science and Engineering with Open Source Tools
18S071	Thermal Properties

- 18S072 Optical Measurements
- 18S073 Electrical Measurements
- 18S074 Magnetic Measurements
- 18S075 Plasma Physics and Applications
- 18S076 Crystal Growth Techniques
- 18S077 Ceramics and Composites
- 18S078 Ferroelectric Materials and Devices

Chemistry Cluster

- 18S085 Chemistry of Water Technology
- 18S086 Polymer Science and Technology
- 18S087 Food Chemistry
- 18S088 Chemistry of Industrially Important Materials
- 18S089 Synthesis of Corrosion Inhibitors and Applications
- 18S090 Ceramic Materials

OPEN ELECTIVES

APPLIED MATHEMATICS AND COMPUTATIONAL SCIENCES

- 18OS01 Applied Statistics
- 18OS02 Statistical Quality Control and Reliability
- 18OS03 Mathematical Finance

ENGLISH

- 18OS15 English and Soft Skills for Employability

MECHANICAL ENGINEERING

- 18OS20 Engineering Graphics

Summary of Credit Distribution

BSc APPLIED SCIENCE								
S. No	Course Work subject Area	Credits Per Semester						Total Credits
		I	II	III	IV	V	VI	
1	HS	3	3	0	0	0	0	6
2	PC	20	20	24	22	22	3	111
3	PE	0	0	0	0	0	12	12
4	SEC	0	0	0	3	0	3	6
5	OE	0	0	0	0	3	0	3
6	EEC	0	0	0	0	0	6	6
	Total	23	23	24	25	25	24	144

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