

GOVERNMENT ARTS COLLEGE FOR MEN
(Autonomous)
NANDANAM, CHENNAI – 600 035.



DEPARTMENT OF CHEMISTRY

COURSE OUTCOME FOR
B.Sc., Degree Course in Chemistry

Semester System

(Three Year UG Degree Course)

CHOICE BASED CREDIT SYSTEM

Effective from the Academic Year

2019- 2020

GOVERNMENT ARTS COLLEGE FOR MEN (AUTONOMOUS), NANDANAM,

CHENNAI - 600035.

**B.Sc., Chemistry
COURSE OUTCOME**

PA RT	COURSE	SUBJECT CODE	TITLE	OUTCOME
SEMESTER I				
I	TLC 11	193301	Tamil Paper- I	
II	ELC11	193801	English Paper - I	
III	CCM 11	192301	General Chemistry - I	In this course the students get the basic understanding in the atomic structure, inorganic analysis, bonding in organic chemistry, chemistry of hydrocarbons, various states of matter and quantum mechanics.
III	CCM 12	192302	Major Practical –I Volumetric analysis	To impart hands on practical training in various volumetric techniques including acidimetry, permanganometry, iodimetry iodometry and complexometry.
III	CCA 11	192193	Allied Mathematics -I	
IV	NMEC 11	192241	Solar energy and its applications (by Physics dept)	
IV	SSEC 11	194006	Essentials of Language and Communications (by English dept)	
SEMESTER II				
I	TLC 21	193302	Tamil Paper - II	
II	ELC21	193802	English Paper -II	
III	CCM 21	192302	Major Practical –I Volumetric analysis	To impart hands on practical training in various volumetric techniques including acidimetry, permanganometry, iodimetry Iodometry and complexometry.
III	CCM 22	192302	General Chemistry- II	In this course the students get the deeper understanding of the bonding concepts in inorganic chemistry, chemistry of alkali and alkaline earth metals and chemistry of hydrocarbons and basics of thermodynamics.
III	CCA 21	192194	Allied Mathematics -II	
IV	NMEC 21	192242	Astrophysics (by physics dept)	
IV	SSEC 21	194007	Essentials of Spoken and Presentation skills (by English dept)	
SEMESTER III				
I	TLC31	193303	Tamil Paper - III	
II	ELC 31	193803	English Paper - III	
III	CCM 31	192304	General Chemistry – III	In this course the students get the understanding of the concepts of inorganic analysis, organic chemistry and mechanisms, and the concepts of thermodynamics.
III	CCM 32	192305	Major Practical II - Inorganic Qualitative Analysis	
III	CCE 31	192321	Elective Paper I – Applied	This course provides the knowledge of frontier

			Chemistry	areas of chemistry namely green chemistry and nanochemistry.
III	CCA 31	192261	Allied Physics I	
III	CCAP 31	192262	Allied Physics Practical	
IV	SSEC 31	194008	Personality Enrichment	
SEMESTER IV				
I	TLC41	193304	Tamil Paper – IV	
II	ELC 41	193804	English Paper – IV	
III	CCM 41	192305	Major Practical II - Inorganic Qualitative Analysis	To enable the students to develop their skills in inorganic qualitative analysis by using semimicro methods to find out anions and cations. To learn the methods of preparation of inorganic compounds.
III	CCM 42	192306	General Chemistry – IV	This course provides the knowledge of various groups of elements, chemistry of alcohols and phenols and application of the concepts of thermodynamics.
III	CCE 41	192322	Elective Paper II – Analytical Chemistry	In this industrial oriented course, students learn concepts of analytical chemistry like error analysis, sample handling, various methods of separation and purification, various chromatography techniques and application of computers to chemical analysis.
III	CCA 41	192263	Allied Physics II	
III	CCAP 41	192262	Allied Physics Practicals	
IV	SSEC 41	194009	Computing Skills (by English dept)	
SEMESTER V				
III	CCM 51	192307	Inorganic Chemistry I	In this course, students learn concepts of nuclear chemistry, chemistry of f-block elements and industrial chemistry.
III	CCM 52	192308	Organic Chemistry I	In this course, students learn the chemistry of carbonyl compounds, organic reaction mechanisms, isomerism and aromaticity.
III	CCM 53	192309	Physical Chemistry I	In this course, students understand the concepts of physical chemistry including solutions, phase rule, adsorption, catalysis and chemical kinetics.
III	CCM 54	192310	Major Practicals III – Organic Analysis and Preparation	To enable the students to develop their skills in organic qualitative analysis and to learn the methods of preparation of organic compounds.
III	CCM 55	192311	Major Practicals IV – Gravimetric Analysis	To enable the students to develop their skills in gravimetric analysis.
III	CCM 56	192312	Major Practicals V – Physical Chemistry	To enable the students to develop their skills in various electrical and non electrical physical chemistry experiments..
III	CCE51	192323	Elective Paper III – Spectroscopy	In this industrial oriented course, students learn concepts of electromagnetic radiation, IR, Raman, UV-visible, NMR and mass spectral techniques.
IV	EVS	194001	Environmental Studies	To understand the depth of pollution by increased developmental activities and to take necessary actions to save our Nation.

SEMESTER VI

III	CCM 61	192310	Major Practicals III – Organic Analysis and Preparation	To enable the students to develop their skills in organic qualitative analysis and to learn the methods of preparation of organic compounds.
III	CCM 62	192311	Major Practicals IV – Gravimetric Analysis	To enable the students to develop their skills in gravimetric analysis.
III	CCM 63	192312	Major Practicals V – Physical Chemistry	To enable the students to develop their skills in various electrical and non electrical physical chemistry experiments..
III	CCM 64	192313	Inorganic Chemistry II	In this course, students understand the advanced concepts of coordination chemistry and bio-inorganic chemistry.
III	CCM 65	192314	Organic Chemistry II	In this course, students understand the advanced concepts of organic chemistry including diazomethane, diazoacetic ester dye chemistry, amino acids and proteins, nucleic acids, carbohydrates, natural products and molecular rearrangements.
III	CCM 66	192315	Physical Chemistry II	In this course, students understand the concepts of physical chemistry including electrochemistry, photochemistry and group theory.
IV	VE	194002	Value Education	
V	Extn. Act.	194003	NSS/NCC/YRC/RRC	

Allied Courses for other departments taken by Chemistry Department Staff

Allied I	192361	Allied Chemistry I	In this course the students get the basic understanding of the bonding concepts in inorganic chemistry, industrial chemistry, organic chemistry, volumetric analysis, photochemistry, medicinal chemistry and environmental chemistry.
Allied II	192362	Allied Chemistry II	In this course the students get the deeper understanding of the coordination chemistry, bio organic chemistry, chemical kinetics and electrochemistry.
Allied III	192363	Allied Chemistry Practicals	To enable the students to develop their skills in volumetric analysis and to learn the methods of preparation of inorganic compounds.

Non Major Elective Courses for other departments taken by Chemistry Department Staff

NMEC I	192341	Basics of Nanotechnology	In this course the students get the deeper understanding of the basics of nanochemistry including nano particles, synthetic techniques, nano materials and instrumental techniques for nano materials..
NMEC II	192342	Corrosion and its control	In this course the students get the deeper understanding of the basics of corrosion science, forms of corrosion, factors influencing corrosion, corrosion prevention and paints.