



VELS
UNIVERSITY



VELS INSTITUTE OF SCIENCE, TECHNOLOGY & ADVANCED STUDIES (VISTAS)

(Deemed to be University Estd. u/s 3 of the UGC Act, 1956)

PALLAVARAM - CHENNAI - INDIA

School of Basic Sciences



Brochure

(Programme and Courses offered)

2018-2019

PV Vaithiyalingam Road, Velan Nagar, Pallavaram, Chennai - 600117.

Phone: + 91 - 44 - 2266 2500 / 2501 / 2502 / 2503

Website: www.velsuniv.ac.in

**VELS INSTITUTE OF SCIENCE
TECHNOLOGY & ADVANCED STUDIES
(VISTAS)**

**School of Basic
Sciences**

Brochure

(Programme and Courses offered)

2018-2019

**PV Vaithiyalingam Rd, Velan Nagar, Krishnapuram, Pallavaram, Chennai, Tamil Nadu
600117,**

Phone: + 91 - 44 - 2266 2500 / 2501 / 2502 / 2503

Website: www.velsuniv.ac.in

About the School

The School offers PG courses in **Chemistry** on a full-time basis. It also offers M.Phil and Ph.D programmes on Full/Part time basis. This Department is well equipped with Organic, Inorganic, Physical and Pharmaceutical Lab and also organizes campus interviews to place the students in companies and industries.

SCHOOL OF BASIC SCIENCES

Department of Chemistry

- | | | | |
|----|---|-----|-----------------------|
| 1. | B.Sc. Chemistry | ... | 3 years (6 semesters) |
| 2. | M.Sc. Chemistry | ... | 2 years (4 semesters) |
| 3. | M.Sc. Pharmaceutical and Analytical Chemistry | ... | 2 years (4 semesters) |
| 4. | M.Sc. Organic Chemistry | ... | 2 years (4 semesters) |
| 5. | M.Phil.Chemistry | ... | 1 years (2 semesters) |
| 6. | Ph.D. Chemistry | ... | 3 years |

Department of Physics

- | | | | |
|----|--------------------|-----|-----------------------|
| 1. | B.Sc. Physics | ... | 3 years (6 semesters) |
| 2. | Ph.D. Physics | ... | 3 years |
| 3. | Ph.D. Nano Science | ... | 3 years |

Department of Mathematics

- | | | | |
|----|---------------------|-----|-----------------------|
| 1. | B.Sc. Mathematics | ... | 3 years (6 semesters) |
| 2. | M.Phil. Mathematics | ... | 1 years (2 semesters) |
| 3. | Ph.D. Mathematics | ... | 3 years |

Courses offered during 2018-19

Program Name	Course Code	Course Name
B.Sc., Chemistry	15BCH001	BASIC CHEMISTRY
	15BCH002	ANALYTICAL TECHNIQUES
	15BCH003	PRACTICAL - INORGANIC QUALITATIVE ANALYSIS AND PREPARATIONS
	15LEN001	ENGLISH PAPER - I
	15LFR001	FRENCH PAPER - I
	15LHN001	HINDI PAPER - I
	15LTA001	TAMIL PAPER - I
	15NSS255	NSS - I
	15BCH004	CHEMISTRY OF HYDROCARBONS
	15BCH005	CHEMISTRY OF METALS AND NON METALS
	15BCH006	PRACTICAL - PHYSICAL CHEMISTRY
	15BCH110	ALLIED BIOTECHNOLOGY
	15BCH111	PRACTICAL - ALLIED BIOTECHNOLOGY
	15LEN002	ENGLISH PAPER - II
	15LFR002	FRENCH PAPER - II
	15LHN002	HINDI PAPER - II
	15LTA002	TAMIL PAPER - II
	15CBHC31	PHASE EQUILIBRIA AND KINETICS
	15CBHC32	BIO - INORGANIC CHEMISTRY
	15CBHC33	ALLIED MATHEMATICS
	15LENG31	ENGLISH PAPER - III
	15LFRE31	FRENCH PAPER - III
	15LHIN31	HINDI PAPER - III
	15LTAM31	TAMIL PAPER - III
	15PBHC31	PRACTICAL - VOLUMETRIC ANALYSIS
	15UGE514	HERBAL DRUG TECHNIQUES
	15CBHC41	QUANTUM MECHANICS AND THERMODYNAMICS
	15CBHC42	NUCLEAR AND SOLID STATE CHEMISTRY
	15DBHC41	COMPUTERS IN CHEMISTRY
	15EVS041	ENVIRONMENTAL STUDIES
	15LENG41	ENGLISH PAPER - IV
	15LFRE41	FRENCH PAPER - IV
	15LHIN41	HINDI PAPER - IV
	15LTAM41	TAMIL PAPER - IV
	15PBHC41	PRACTICAL - GRAVIMETRIC ANALYSIS
	15UGE523	FOOD AND BEVERAGE MANAGEMENT
	15CBHC51	COORDINATION CHEMISTRY
	15CBHC52	FUNDAMENTALS OF SPECTROSCOPY
	15CBHC53	ELECTROCHEMISTRY AND SURFACE CHEMISTRY
	15DBHC51	FOOD CHEMISTRY AND ADULTERATION
15NSS256	NSS - II	
15PBHC51	PRACTICAL - ORGANIC ANALYSIS AND PREPARATION	

	15PBHC52	PRACTICAL - COMPUTERS IN CHEMISTRY
	15UGE513	INTERNET BASICS
	15CBHC61	CHEMISTRY OF NATURAL PRODUCTS
	15CBHC62	PHARMACEUTICAL CHEMISTRY
	15CBHC63	STEREOCHEMISTRY AND MOLECULAR REARRANGEMENT
	15DBHC61	CHEMISTRY IN EVERYDAY LIFE
	15DBHC62	AGRO INDUSTRIAL CHEMISTRY
	15NSS257	NSS - III
	15PBHC61	PRACTICAL - INSTRUMENTAL METHODS OF CHEMICAL ANALYSIS
M.Sc., Chemistry	15MGC001	ORGANIC CHEMISTRY - I
	15MGC002	INORGANIC CHEMISTRY - I
	15MGC003	PHYSICAL CHEMISTRY - I
	15MGC004	PRACTICAL - I : PHYSICAL CHEMISTRY
	15MGC101	MACROMOLECULAR CHEMISTRY
	15MGC102	ANALYTICAL TECHNIQUES
	15SSK151	SOFT SKILL - I
	15MGC005	ORGANIC CHEMISTRY - II
	15MGC006	INORGANIC CHEMISTRY - II
	15MGC007	PHYSICAL CHEMISTRY - II
	15MGC008	PRACTICAL - II ORGANIC CHEMISTRY
	15MGC009	PRACTICAL - III ANALYTICAL CHEMISTRY
	15MGC010	INTERNSHIP
	15MGC106	NUCLEAR AND PHOTOCHEMISTRY
	15SSK152	SOFT SKILL - II
	15PGE534	AIR POLLUTION MANAGEMENT
	15CMSG31	ORGANIC CHEMISTRY - III
	15CMSG32	INORGANIC CHEMISTRY - III
	15CMSG33	PHYSICAL CHEMISTRY - III
	15CMSG34	STEREOCHEMISTRY AND REACTION MECHANISM
	15CMSG35	NOVEL MATERIALS AND GREEN INDUSTRIAL CATALYSIS
	15PMSG31	PRACTICAL - IV INORGANIC CHEMISTRY
	15PGE532	MUSHROOM CULTIVATION AND MEDICINAL MINT GARDENING
15CMSG41	ELECTRO ANALYTICAL AND SEPARATION TECHNIQUES	
15DMSG41	ORGANIC NAME REACTIONS AND SYNTHESIS OF REAGENTS	
15RMSG41	PROJECT WORK	
M.Sc., Pharmaceutical Analy.Chemistry	15MPS001	MEDICINAL CHEMISTRY
	15MPS002	FUNDAMENTALS OF PHARMACEUTICAL CHEMISTRY
	15MPS003	ADVANCED ORGANIC CHEMISTRY
	15MPS004	PRACTICAL - I ORGANIC SYNTHESIS
	15MPS101	FUNDAMENTALS OF BIOCHEMISTRY
	15MPS102	CHEMICAL AND INSTRUMENTAL METHODS OF

		DRUG ANALYSIS
	15SSK151	SOFT SKILL - I
	15MPS005	ADVANCED PHARMACEUTICAL CHEMISTRY
	15MPS006	QA AND QC IN DRUGS AND PHARMACEUTICALS
	15MPS007	ANALYTICAL TECHNIQUES IN CHEMISTRY
	15MPS008	PRACTICAL - II PHARMACEUTICAL AND DRUG ANALYSIS
	15MPS009	INTERNSHIP
	15MPS106	SYNTHESIS OF APIS AND THEIR MANUFACTURE
	15MPS107	ORGANIC NAME REACTIONS AND SYNTHESIS OF REAGENTS
	15MPS111	CHEMISTRY OF NATURAL PRODUCTS
	15SSK152	SOFT SKILL - II
	15PGE504	HERBAL DRUG TECHNOLOGY
	15CMSP31	PHARMACEUTICAL FORMULATION TECHNOLOGY - I
	15CMSP32	ADVANCED CHROMATOGRAPHIC TECHNIQUES
	15CMSP33	CHEMISTRY OF NATURAL PRODUCTS
	15CMSP34	ENZYME TECHNOLOGY AND RELATED ENTREPRENEURIAL SKILLS
	15CMSP35	STRATEGIC MANAGEMENT OF PHARMA INDUSTRY
	15PMSP31	PRACTICAL - III MEDICINAL CHEMISTRY
	15PMSP32	PRACTICAL - IV PHYTO CHEMISTRY
	15PGE509	COMPUTER AIDED DRUG DESIGNING
	15CMSP41	PHARMACEUTICAL FORMULATION TECHNOLOGY- II
	15DMSP41	STRATEGIC MANAGEMENT OF PHARMA INDUSTRY
	15RMSP41	PROJECT WORK
B.Sc., Physics	17CBPS11	PROPERTIES OF MATTER AND ACOUSTICS
	17CBPS12	MECHANICS
	17GBPS11	MATHEMATICS - I
	17LECM11	ENGLISH FOR COMMUNICATION
	17LENG11	ENGLISH PAPER - I
	17LFRE11	FRENCH PAPER - I
	17LHIN11	HINDI PAPER - I
	17LTAM11	TAMIL PAPER - I
	17PBPS11	PRACTICAL - PHYSICS - I
	17PBPS12	PRACTICAL - PHYSICS - II
	17CBPS21	THERMAL PHYSICS
	17CBPS22	OPTICS
	17EVS021	ENVIRONMENTAL STUDIES
	17GBPS21	MATHEMATICS - II
	17LENG21	ENGLISH PAPER - II
	17LFRE21	FRENCH PAPER - II

	17LHIN21	HINDI PAPER - II
	17LTAM21	TAMIL PAPER - II
	17PBPS21	PRACTICAL - PHYSICS - III
	17PBPS22	PRACTICAL - PHYSICS - IV
	17CBPS31	ELECTRICITY AND MAGNETISM
	17CBPS32	ANALOG ELECTRONICS
	17GBPS31	GENERAL CHEMISTRY - I
	17LENG31	ENGLISH PAPER - III
	17LFRE31	FRENCH PAPER - III
	17LHIN31	HINDI PAPER - III
	17LTAM31	TAMIL PAPER - III
	17NSS255	NSS - I
	17PBPS31	PRACTICAL - PHYSICS - V
	17PBPS32	PRACTICAL - PHYSICS - VI
	17PBPS33	PRACTICAL - GENERAL CHEMISTRY - I
B.Sc., Mathematics	17CBMS11	ALGEBRA AND TRIGONOMETRY
	17CBMS12	DIFFERENTIAL CALCULUS
	17GBMS11	PHYSICS - I
	17LECM11	ENGLISH FOR COMMUNICATION
	17LENG11	ENGLISH PAPER - I
	17LFRE11	FRENCH PAPER - I
	17LHIN11	HINDI PAPER - I
	17LTAM11	TAMIL PAPER - I
	17PBMS11	PRACTICAL - PHYSICS - I
	17CBMS21	ANALYTICAL GEOMETRY
	17CBMS22	INTEGRAL CALCULUS
	17EVS021	ENVIRONMENTAL STUDIES
	17GBMS21	PHYSICS - II
	17LENG21	ENGLISH PAPER - II
	17LFRE21	FRENCH PAPER - II
	17LHIN21	HINDI PAPER - II
	17LTAM21	TAMIL PAPER - II
	17PBMS21	PRACTICAL - PHYSICS II
	17CBMS31	DIFFERENTIAL EQUATIONS
	17DBMS31	STATISTICS AND PROBABILITY
	17GBMS31	COMPUTER FUNDAMENTALS
	17LENG31	ENGLISH PAPER - III
	17LFRE31	FRENCH PAPER - III
	17LHIN31	HINDI PAPER - III
	17LTAM31	TAMIL PAPER - III
	17NSS255	NSS - I
	M.Sc., Organic Chemistry	15MOC001
15MOC002		INORGANIC CHEMISTRY - I
15MOC003		PHYSICAL CHEMISTRY - I
15MOC004		PRACTICAL I - ORGANIC CHEMISTRY - I
15MOC101		SEPARATION TECHNIQUES
15MOC102		ORGANIC NAME REACTIONS AND SYNTHESIS OF REAGENTS
15SSK151		SOFT SKILL - I

	15MOC005	ORGANIC CHEMISTRY - II
	15MOC006	ANALYTICAL TECHNIQUES
	15MOC007	PHYSICAL CHEMISTRY - II
	15MOC008	PRACTICAL - II PHYSICAL CHEMISTRY
	15MOC009	PRACTICAL - III INORGANIC CHEMISTRY
	15MOC010	INTERNSHIP
	15MOC106	STEREO CHEMISTRY AND REACTION MECHANISM
	15SSK152	SOFT SKILL - II
	15PGE504	HERBAL DRUG TECHNOLOGY
	15CMSO31	ORGANIC CHEMISTRY - III
	15CMSO32	ORGANO METALLIC AND PHOTOCHEMISTRY
	15CMSO33	ORGANIC SPECTROSCOPY
	15CMSO34	PHARMACEUTICAL CHEMISTRY
	15CMSO35	NATURAL PRODUCTS
	15PMSO31	PRACTICAL - IV ORGANIC CHEMISTRY - II
	15PGE513	FOOD AND BEVERAGE
	15CMSO41	SYNTHETIC ORGANIC CHEMISTRY
	15DMSO41	NOVEL MATERIALS AND GREEN INDUSTRIAL CATALYSIS