

**ANNAI VELANKANNI COLLEGE, THOLYAVATTOM**

**B.SC. CHEMISTRY MAJOR**

**Syllabus for the students who joined the course from June 2006 onwards**

**COURSE STRUCTURE**

**Theory Papers:**

Semester	Title of the Paper	Teaching Hours per Week	Examination Hours	Maximum Marks
<b>I</b>	1. Inorganic Chemistry – Paper I.	3	3	<b>100</b>
	2. Organic Chemistry – Paper I	3	3	<b>100</b>
<b>II</b>	3. Inorganic Chemistry – Paper II	3	3	<b>100</b>
	4. Physical Chemistry – Paper I	3	3	<b>100</b>
<b>III</b>	5. Physical, Chemistry – Paper II	3	3	<b>100</b>
	6. Environmental Studies	2	3	<b>100</b>
<b>IV</b>	7. Organic Chemistry – Paper II	3	3	<b>100</b>
	8. Environmental Studies	2	-	<b>100</b>
<b>V</b>	Social Value Education	2	3	<b>100</b>
	9. Inorganic Chemistry – Paper III	5	3	<b>100</b>
	10. Organic Chemistry – Paper III	5	3	<b>100</b>
	11. Physical Chemistry – Paper III	5	3	<b>100</b>
	12. Optional Paper I			
	A. Medical Chemistry	4	3	<b>100</b>
	B. Material Science and Nanochemistry.			
C. Dairy Chemistry	1	-	-	
Chemistry Project				
<b>VI</b>	13. Inorganic Chemistry – Paper IV	5		<b>100</b>
	14. Organic Chemistry – Paper IV.	5	3	<b>100</b>
	15. Physical Chemistry – Paper IV.	5	3	<b>100</b>
	16. Optional Paper II.		3	
	A. Industrial Chemistry			
	B. Soil and Agricultural Chemistry	4		<b>100</b>
	C. Forensic Chemistry.		3	
17. Chemistry Project	3	Viva voce	<b>100</b>	

## LABORATORY COURSE

Semester	Title of the Paper	Lab Hours Per Week	Exam Hours	Maximum Marks
<b>I and II</b>	Practical Paper I Inorganic Volumetric Analysis	2	3	<b>100</b>
<b>III and IV</b>	Practical Paper II Inorganic Qualitative Analysis	3	3	<b>100</b>
<b>V and VI</b>	Practical Paper III (Inorganic Quantitative Analysis)	8 Hours	6	<b>100</b>
	Practical Paper IV. (Organic Experiments)	-	6	<b>100</b>
	Practical Paper V (Physical Chemistry Experiments)	-	6	<b>100</b>
	Practical Paper VI. (Inorganic & Organic Preparations and Viva Voce)	-	3	<b>100</b>

### Maximum Marks for Chemistry Major Papers

Theory papers = 1400 Marks.

Practical papers = 600 Marks.

Project Work = 100 Marks.

**Total = 2100 Marks**

## Course Scheme and Scheme of Examinations

### M.Sc. Degree Course in Chemistry

(For those admitted in July 2006 and later)

	Title of the Paper	Weekly contact hours	Semester Exam	
			<i>Duration</i>	<i>Marks</i>
Semester I	Organic Chemistry – I			
	Inorganic Chemistry – I	6	3	100
	Physical Chemistry – I	6	3	100
	Organic Chemistry Practical – I	6	3	100
	Inorganic Chemistry Practical – I	4	----	----
	Physical Chemistry Practical – I	4	----	----
		4	----	----
	30			
Semester II	Inorganic Chemistry – II			
	Physical Chemistry – II	6	3	100
	Advanced topics in Chemistry	6	3	100
	Organic Chemistry – I	6	3	100
	Inorganic Chemistry – I	4	----	100
	Physical Chemistry – I	4	----	100
		4	----	100
	30			
Semester III	Organic Chemistry – II			
	Physical Chemistry – III			
	Research Methodology	6	3	100
	Organic Chemistry Practical – II	6	3	100
	Inorganic Chemistry Practical – II	4	3	100
	Physical Chemistry Practical – II	4	----	----
		4	----	----
	30			
Semester IV	Organic Chemistry – III			
	Inorganic Chemistry – III		3	100
	Organic Chemistry Practical – II	6	3	100
	Inorganic Chemistry Practical – II	6	3	100
	Physical Chemistry Practical - II	6	----	100
	Project & Viva-voce	4	----	100
		4	----	100
	30			1800

Note : Practical examinations will be conducted at the end of each academic year. Project evaluation and viva will be conducted at the end of Semester IV.