



MES KEVEEYAM COLLEGE VALANCHERY

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Aided by Govt. of Kerala and Affiliated to University of Calicut
Reaccredited with 'A' Grade by NAAC (Score 3.28)
ISO 9001:2015 certified Institution

List of new courses introduced in the Programme BSc Polymer Chemistry

Name of the New Courses Introduced in the Last 5 years	Programme Name	Programme Code	Course Code	Year of Introduction
Theoretical and Inorganic Chemistry-I	BSc Polymer Chemistry	MESKV/03/CH	CHE1B01	2014
Theoretical and Inorganic Chemistry-II	BSc Polymer Chemistry	MESKV/03/CH	CHE2B02	2014
Physical Chemistry I	BSc Polymer Chemistry	MESKV/03/CH	CHE3B03	2014
Organic chemistry I	BSc Polymer Chemistry	MESKV/03/CH	CHE4B04	2014
Inorganic Chemistry III	BSc Polymer Chemistry	MESKV/03/CH	CHE6B06	2014
Inorganic Chemistry IV	BSc Polymer Chemistry	MESKV/03/CH	CHE6B09	2014
Organic Chemistry III	BSc Polymer Chemistry	MESKV/03/CH	CHE6B10	2014
Polymer Chemistry I	BSc Polymer Chemistry	MESKV/03/CH	PC6B01	2014
E1-Polymer Processing and Technology	BSc Polymer Chemistry	MESKV/03/CH	PC6B02(E)	2014
Nutrition and Health	BSc Polymer Chemistry	MESKV/03/CH	A014	2014



PRINCIPAL
MES KEVEEYAM COLLEGE
VALANCHERY, PIN-676 552
MALAPPURAM

UNIVERSITY OF CALICUT

(Abstract)

B.Sc Programme in Polymer Chemistry under Choice based Credit Semester System Scheme and Syllabus – implemented with effect **from 2009 admission** – approved – orders issued.

GENERAL AND ACADEMIC BRANCH – I 'J' SECTION

No.GAI/J2/8619/2007.

Dated, Calicut University. P.O, 01.07.2009.

- Read:
1. U.O.No.GA1/J2/3601/08 Vol.II dated 19.06.2009.
 2. Minutes of the meeting of the Board of Studies in Polymer Chemistry held on 29.04.2009.
 3. Item No.2 (xix) of the minutes of the meeting of the Faculty of Science held on 05.05.2009.
 4. Item No. II A(20) of the minutes of the meeting of the Academic Council held on 14.05.2009.

ORDER

As per paper read as 1st above, Choice based Credit Semester System and Grading has been introduced for UG curriculum in the affiliated Colleges of the University with effect from 2009 admission and the Regulation for the same implemented.

Vide paper read as 2nd the Board of Studies in Polymer Chemistry approved the Syllabus of the B.Sc. General Chemistry Programme and to opt the 6th Semester open Course (Elective) as Chemistry and Technology of Polymer for the B.Sc Polymer Chemistry Programme.

The Faculty of Science vide paper read as 3rd endorsed the minutes of the Board of Studies in Polymer Chemistry.

The Academic Council , vide paper read as 4th above, approved the minutes of the Faculty of Science.

Sanction has therefore been accorded for implementing the Scheme and Syllabus of B.Sc.Programme in Polymer Chemistry with effect from 2009 admission. Syllabus of B.Sc.Programme in Polymer Chemistry is same as that of B.Sc.Programme in General Chemistry and the 6th Semester (open course) is Chemistry and Technology of Polymer for B.Sc. Programme in Polymer chemistry.

Orders are issued accordingly.

Sd/-
DEPUTY REGISTRAR (G&A-I)
For REGISTRAR.

To

The Principals of affiliated Colleges
Offering B.Sc, Programme in Polymer chemistry.

Copy to: PS to VC/PA to PVC/PA to
Registrar/CE/EX/EG I/DR B.Sc./ Enquiry/
System Administrator(with a request to upload in the
University website)/G&A-I 'A' 'F' 'G Sns./G&A-II, III
Branches

Forwarded/By Order

SECTION OFFICER.

UNIVERSITY OF CALICUT
RESTRUCTURED CURRICULUM FOR B.Sc. PROGRAMME
IN CHEMISTRY

Course Structure (Total Credits : 120)

Semester I

Exam : 3 hrs (Internal 25%; External 75%); Total Credits : 19

No.	Code No	Course Title	Hrs/Week	Total Hrs	Credit
1	A01	Communicative skills in English	5		3
2	A02	Critical reasoning, writing & presentation	4		3
3	A07	Communication skills in other languages	4		4
4	CH1B01	Core Course 1 Foundations in Chemistry	2	36	2
5	CH1B02(P)	Core Course Practical-I (Volumetric Analysis)	2	36	—
6	PH1C01	1 st Complimentary Course – Physics I	2		2
7	PH1C02(p)	1 st Complementary Course – Practical Physics I	2		—
8	MA1C01	2 nd Complementary Course – Maths I	4		3
			25 hrs		17 Credits

Semester II

Exam : 3 hrs (Internal 25%; External 75%); Total Credits : 19

No.	Code No	Course Title	Hrs/Week	Total Hrs	Credit
1	A03	Reading literature in English	5		4
2	A04	Readings on Indian constitution, secularism and sustainable environment	4		4
3	A08	Transalation & communication in other languages	4		4
4	CH2B03	Core Course II Theoretical Chemistry	2	36	2
5	CH2B04(P)	Core Course II Practicals-II (Volumetry)	2	36	—
6	PH2C03	1 st Complementary Course Physics II	2		2
7	PH2C04(P)	1 st Complementary Course – Practical Physics II	2		—
8	MA2C02	2 nd Complementary Course – Maths II	4		3
			25 Hrs		19 Credits

Semester III

Exam : 3 hrs (Internal 25%; External 75%); Total Credits : 16

No.	Code No	Course Title	Hrs/Week	Total Hrs	Credit
1	A05	Literature and contemporary issues	5		4
2	A09	Literature in other languages	5		4
3	CH3B05	Core Course III Physical Chemistry I	3	54	3
4	CH3B06(P)	Core Course Practicals-III (Volumetry)	2	36	
5	PH3C05	1 st Complementary Course Physics III	3		2
6	PH3C06(P)	1 st Complementary Course Practicals III	2		–
7	MA3C03	2 nd Complementary Course – Maths III	5		3
			25 hrs		16 credits

Semester IV

Exam : 3 hrs (Internal 25%; External 75%); Total Credits : 24

No.	Code No	Course Title	Hrs/Week	Total Hrs	Credit
1	A06	History and philosophy of science	5		4
2	A10	Culture and civilization	5		4
3	CH4B07	Core Course IV Organic Chemistry I	3	54	3
4	CH4B08(P)	Core Course Practical -IV (Volumetry)	2	36	4
5	PH4C07	1 st Complementary Course Physics IV	3		2
6	PH4C08(P)	1 st Complementary Course Practicals IV	2		4
7	MA4C04	2 nd Complementary Course Maths IV	5		3
			25 hrs		24 credits

Semester V Exam : 3 hrs (Internal 25%; External 75%); Total Credits : 19

No.	Code No	Course Title	Hrs/ Week	Total Hrs	Credit
1	CH5B09	Core Course V Inorganic Chemistry I	3	54	3
2	CH5B10	Core Course VI Organic Chemistry II	3	54	3
3	CH5B11	Core Course VII Physical Chemistry II	4	72	3
4	CH5B12(P)	Core Course V Practical (Inorganic qualitative analysis)	5	90	4*
5	CH5B13(P)	Core Course Practical-VI (Organic analysis and preparation)	5	90	4*
6	CH5D01 CH5D02 CH5D03	Open Course I (Soft courses offered to students other than Chemistry main students) Environmental Chemistry / Chemistry in Everyday Life / Plastics and Rubbers in everyday life	3	54	4
7	CH5B14(Pr)	Course work / Project / Industrial visit	2	36	
			25 hrs		21 credits

* Exam will be held at the end of 6th semester

Semester VI Exam : 3 hrs (Internal 25%; External 75%); Total Credits : 23

No.	Code No	Course Title	Hrs/ Week	Total Hrs	Credit
1	CH6B15	Core Course VIII Inorganic Chemistry II	3	54	3
2	CH6B16	Core Course IX Organic Chemistry III	4	72	3
3	CH6B17	Core Course X Physical Chemistry III	3	54	3
4	CH6B18(P)	Core Course Practical- VII (Physical chemistry)	5	90	4
5	CH6B19(P)	Core Course Practicals - VIII (Gravimetric Estimation)	5	90	4
6	CH6B20(E1) CH6B20(E2) CH6B20(E3) * CH6B20(E4) ** CH6B20(E5)	Elective Course 1. Analytical Chemistry 2. Synthetic Organic Chemistry 3. Environmental Chemistry 4. Chemistry and Technology of Polymers 5. Industrial chemistry	3	54	2
7	CH6B21(Pr)	Course work / Project	2	36	4
			25 hrs		23 credits

*Bsc(polymerchemistry)

**BSc(Industrialchemistry)

COURSE STRUCTURE
COMPLEMENTARY COURSE IN CHEMISTRY TO OTHER MAIN STUDENTS

Semester	Code No	Course Title	Hrs/ Week	Total Hrs	Credit
I	CH1C01	General Chemistry	2	36	2
	CH1C02(P)	Complementary practical I	2	36	-
II	CH2C03	Inorganic and Physical Chemistry	2	36	2
	CH2C04(P)	Complementary practical II	2	36	-
III	CH3C05	Organic and biochemistry	3	54	2
	CH3C06(P)	Complementary practical III	2	36	-
IV	CH4C07	Physical chemistry	3	54	2
	CH4C08(P)	Complementary practical IV	2	36	4
		Total	18	324	12



UNIVERSITY OF CALICUT

Abstract

BSc in Polymer Chemistry(LRP)-CUCBCSS UG 2014-Scheme and Syllabus- Approved- Implemented-w.e.f 2014 Admissions-Orders issued.

G & A - IV - J

U.O.No. 7581/2014/Admn

Dated, Calicut University.P.O, 05.08.2014

- Read:-**1. U.O. No. 3797/2013/CU, dated 07.09.2013 (CBCSS UG Modified Regulations)(File.ref.no. 13752/GA IV J SO/2013/CU).
2. U.O. No. 5180/2014/Admn, dated 29.05.2014 (CBCSS UG Revised Regulations)(File.ref.no. 13752/GA IV J SO/2013/CU).
3. Item no. 1 of the minutes of the meeting of the Board of Studies in Polymer Chemistry held on 23.07.2014.
4. Remarks of the Dean, Faculty of Science dated 31.07.2014.
5. Orders of the VC on 04.08.2014, in the file no, 25705/GA IV /J2/2014/CU.

ORDER

The Modified Regulations of Choice Based Credit Semester System for UG Curriculum w.e.f 2014 was implemented under the University of Calicut vide paper read as (1).

✓The Revised CUCBCSS UG Regulations has been implemented w.e.f 2014 admission, for all UG programme under CUCBCSS in the University, vide paper read as (2).

The Board of Studies in Polymer Chemistry has approved the syllabus of BSc Programme in Polymer Chemistry in accordance with the new Regulations for UG programmes 2014, vide paper read as (3).

The Dean Faculty of Science has also approved the recommendations of the Board vide paper read as (4).

The Hon'ble Vice Chancellor, considering the exigency, exercising the powers of the Academic Council has approved the minutes of the Board of Studies in Polymer Chemistry held on 23.07.2014, subject to ratification by the Academic Council, vide paper read as (5).

Sanction has, therefore, been accorded for implementing the Scheme and Syllabus of BSc. in Polymer Chemistry under CUCBCSS UG 2014, in the University, w.e.f 2014 Admissions.

Orders are issued accordingly.

Core Course Structure
Total Credits: 56 (Internal: 20%; External: 80%)

	Code No	Course Title	Hrs/Week	Total Hrs	Credit	Marks
I	CHE1B01	Core Course I: Theoretical and Inorganic Chemistry-I	2	36	2	100
	-	Core Course V : Inorganic Chemistry Practical-I	2	36	-	-
II	CHE2B02	Core Course II: Theoretical and Inorganic Chemistry-II	2	36	2	100
	-	Core Course V : Inorganic Chemistry Practical-I	2	36	-	-
III	CHE3B03	Core Course III: Physical Chemistry-I	3	54	3	100
	-	Core Course V : Inorganic Chemistry Practical-I	2	36	-	-
IV	CHE4B04	Core Course IV: Organic Chemistry-I	3	54	3	100
	CHE4B05(P)	Core Course V : Inorganic Chemistry Practical-I	2	36	4	100
	CHE4B06	Core Course VI: Inorganic Chemistry-III	3	54	3	100
V	CHE5B07	Core Course VII: Organic Chemistry-II	4	72	3	100
	CHE5B08	Core Course VIII: Physical Chemistry-II	4	72	3	100
	-	Core Course XIV: Organic Chemistry Practical	5	90	-	-
	-	Core Course XV: : Inorganic Chemistry Practical- II	5	90	-	-
	-	Core Course XVIII: Project Work	2	36	-	-
	CHE6B09	Core Course IX: Inorganic Chemistry-IV	3	54	3	100
	CHE6B10	Core Course X: Organic Chemistry-III	3	54	3	100
VI	CHE6B11	Core Course XI: Physical Chemistry-III	3	54	3	100
	PC6B01	Core Course XII: Polymer Chemistry I	3	54	3	100
	PC6B02 (E)	Core Course XIII: Elective	3	54	3	100
		E1. Polymer Processing & Technology				
		E2. Polymer Blends & Composites				
	CHE6B14(P)	Core Course XIV: Physical Chemistry Practical	-	-	4**	100
	CHE6B15(P)	Core Course XV: Organic Chemistry Practical	-	-	4**	100
	CHL6B16(P)	Core Course XVI: Inorganic Chemistry Practical-II*	5	90	4	100
	CHE6B17(P)	Core Course XVII: Inorganic Practical-III	5	90	4	100
	CHE6B18(Pr)	Core Course XVIII: Project Work	-	-	2**	50
Total					56	1750

* Exam will be held at the end of 4th semester

** Exam will be held at the end of 6th semester

* Include industrial visit also. Marks: 25 (Inorganic Chemistry Practical-II) + 15 (Industrial visit).

Unit	Topic	Course outline	Hrs
1	Concept of Health	Definition of physical health, mental health, social health , spiritual health -determinants of health, indication of health	4
2	Concept of Nutrition	Definition of terms: Nutrition, under nutrition, Malnutrition, Health & Nutritional status -adequate, optimum & good nutrition. Relation of good nutrition to normal physical development & sound health	6
3	Energy	Definition of Caloric & Joule. Measurement of calorific values of food, basal metabolism, specific dynamic action of foods, energy needs of body, measurement of energy balance of body	6
4	Food Guide	Nutrients supplied by foods. Basic food groups	4
5	Carbohydrates	Sources, Classification, digestion, absorption, transportation & utilization, functions, sources, requirements and effect of deficiency. Dietary Fibre- Definition, classification, sources, role of fibre in human nutrition	10
6	Proteins	Classification, digestion absorption, transportation & utilization, functions, sources & requirements. Essential aminoacids, evaluation of protein quality, supplementation and deficiency.	10
7	Lipids	Classification, saturated and unsaturated fatty acids, digestion, absorption, transportation & utilization, functions, sources & requirements and effect of deficiency	10
8	Minerals	Functions, sources, absorption and factors affecting the utilization of Calcium, Phosphorus, Iron, Iodine, Copper and Flouride, effects of deficiency	6
9	Vitamins	Classification, functions, sources, factors affecting destruction, factors enhancing vitamins in foods, absorption, requirements & deficiency	8