VIGNAN'S
Foundation for Science, Technology & Research
(Deemed to be University)
Estd. u/s 3 of UGC Act 1956

Chemistry division, Department of Science & Humanities

Minutes of the M.Sc. (Chemistry) board of studies (BOS) meeting

M.Sc. (Chemistry) board of studies (BOS) meeting:

As per registrar proceedings of VFSTR/Reg/A1/11/2019 dated 21/11/2019, M.Sc. (Chemistry) board of studies (BOS) meeting was conducted to design the course structure and syllabus. The following members were attended the meeting, which was held in VC conference hall, A-block from 9.00 am to 3.00 pm.

Board of studies (BOS) members:

S.No.	Member with designation	Institute	Designation
1	Prof. G. Ranga Rao, Professor	IIT Madras	BOS member (External)
2	Prof. P. Balamurugan, Professor	University of Hyderabad	BOS member (External)
3	Prof. K. Laxma Reddy, Professor	NIT Warangal	BOS member (External)
4	Dr. M. Naveen, Manager	SVAK Life Sciences	BOS member (External)
5	Prof. N. Srinivasu, HOD, S & H	VFSTR	Chairman, BOS member (Internal)
6	Prof. K. Prabhakara Rao, Head of Chemistry	VFSTR	Convenor, BOS member (Internal)
7	Prof. N. Satyasree, Professor	VFSTR	BOS member (Internal)
8	Prof. D. Nagaraju, Professor	VFSTR	BOS member (Internal)
9	Dr. A. Goswami, Associate Professor	VFSTR	BOS member (Internal)
10	Dr. Shaik Anwar, Associate Professor	VFSTR	BOS member (Internal)
11	Dr. M. Sireesha Associate Professor	VFSTR	BOS member (Internal)
12	Dr. T. Bharat Kumar Assistant Professor	VFSTR	BOS member (Internal)

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Minutes of the BoS meeting:

- The meeting started with welcoming messages from Prof. N. Srinivasu, HoD, department of S&H and Prof. K. Prabhakara Rao, Div. Head, Chemistry Div., department of S & H who appreciated the members for attending the meeting.

- Regarding the course structures, Prof. K. Prabhakara Rao explained the process the division underwent to design the syllabus to make it at par with best academic institutions in India.

- He emphasized on the uniqueness of the program especially in the context of the academic higher studies in India and abroad, research activities, industrial/academic internships, professional development and employability) as compared to the ones available in nearby areas.

- He also highlighted the quality and the competence of the faculty members as well as the available and proposed infrastructure.

- The course structure was highly appreciated by each of the external BoS members. With minor modifications the proposed course structure was accepted, and the course was approved by the BoS members.

- The external BoS members also opined that this unique course structure would surely have the potential to be recognized as one of the best in India and wished all the success to the entire division.

- At the end, Prof. N. Srinivasu expressed his sincere thanks to the external committee for their valuable suggestions.

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Division of Chemistry, Department of S&H,

M. Sc. Chemistry (Specialization in Industrial Chemistry)

M.Sc. (Chemistry) board of studies (BOS) Members:

Prof. G. Ranga Rao,
Professor

Prof. N. Srinivasu,
HOD, S & H

Dr. A. Goswami,
Associate Professor

Prof. P. Balamurugan,
Professor

Prof. K. Prabhakara Rao,
Head of Chemistry

Dr. Shaik Anwar,
Associate Professor

Prof. K. Laxma Reddy,
Professor

Prof. N. Satyasree,
Professor

Dr. M. Sireesha
Associate Professor

Dr. M. Naveen, Manager,
SVAK

Prof. D. Nagaraju,
Professor

Dr. T. Bharat Kumar
Assistant Professor

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Outcomes of the Meeting:

- BoS members approved the curriculum (Structure, syllabus and regulations) of M.Sc. Chemistry, and it follows **Choice Based Credit System**. Structure is provided in Annexure – I.

- All the courses in the curriculum are designed to fall under either of the domains of Employability or Entrepreneurship and Skill development. The mapping of the courses with Employability or Entrepreneurship and Skill development is provided in Annexure – II.

- All suggested minor modifications are implemented in all the proposed new courses and the list of new courses provided in Annexure – III.

- Feedback from various stakeholders is collected, analyzed and given utmost priority while designing the curriculum and implemented all the suggestions.

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Annexure-1

M. Sc. Chemistry (Designed for Global Industrial jobs) Syllabus

S. No	Title of the course	Course type	Credits	Hours
	SEMISTER -I			
1	Inorganic Chemistry-1	Core	4	4L
2	Organic Chemistry-1	Core	4	4L
3	Physical Chemistry-1	Core	4	3L + 1T
4	Analytical Chemistry	Core	4	4L
5	Mathematics and Symmetry for Chemistry	Core	3	2L + 1T
6	Basics of Computer	Core	3	3L
7	Inorganic Chemistry-Lab	Core	2	4P
8	Physical Chemistry-1-Lab	Core	2	4P
	Total credits (SEM- I)		26	30
	SEMISTER -II			
1	Organic Chemistry-2	Core	4	4L
2	Physical Chemistry-2	Core	4	4L
3	Inorganic Chemistry – 2	Core	4	3L+1T
4	Spectroscopic Methods for Chemical Analysis	Core	4	3L+1T
5	Organic Chemistry-1-Lab	Core	2	4P
6	Physical Chemistry 2 Lab	Core	2	4P
7	Computational Chemistry Lab	Core	2	4P
8	Seminar	-	2	2P
	Total credits (SEM- II)		24	30

N. Sunny
Chairman, BOS

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S. No	Title of the course	Course type	Credits	Hour
	SEMISTER -III			
1	Solid-state and Materials Chemistry	Core	4	4L
2	Characterization Methods for Materials	Core	4	3L+1T
3	Industrial Chemistry - Food, Agro and pharmaceutical -Chemistry	Core	4	4L
4	Elective (EL-1)	Elective	4	4L
	Surface and Interfacial Chemistry (EL-1)			
	Advanced Organic Chemistry (EL-1)			
	Biological Chemistry (EL-1)			
5	Organic Chemistry-2-Lab	Core	2	4P
6	Inorganic Chemistry-2-Lab	Core	2	4P
7	Industrial Training		2	
8	Mini project	Core	2	6P
	Total credits Total credits (SEM- III)		24	30
	SEMISTER -IV			
1	Industrial Applications of Nanomaterials and Catalysts	Core	4	4L
2	Elective (EL-2)	Elective	4	4L
3	Elective (EL-3)	Elective	4	4L
	Environmental and Sustainable Chemistry (EL-2)			
	IPR, TQM and Technology management (EL-2)			
	Polymers and Elastomers (EL-2)			
	Stereo-selective Organic Synthesis (EL-3)			
	Industrial Electrochemistry and batteries (EL-3)			
	Medicinal Chemistry (EL-3)			
4	Major project	Core	10	18H
	Total credits (SEM- IV)		22	30
	Total course credits		96	120

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Annexure – II

List of courses that enable Employability or Entrepreneurship and Skill development

Year	Name of the course	Employability/ Entrepreneurship/ Skill development
I	Inorganic Chemistry – 1	Employability
I	Organic Chemistry – 1	Employability
I	Physical Chemistry – 1	Employability
I	Analytical Chemistry	Employability
I	Mathematics and Symmetry for Chemistry	Skill development
I	Basics of Computers	Skill development
I	Inorganic Chemistry – Lab	Employability
I	Physical Chemistry – Lab	Employability
I	Organic Chemistry – 2	Employability
I	Physical Chemistry – 2	Employability
I	Inorganic Chemistry – 2	Employability
I	Spectroscopic Methods for Chemical Analysis	Employability
I	Organic Chemistry -1-Lab	Employability
I	Physical Chemistry-2-Lab	Employability
I	Computational Chemistry Lab	Employability
I	Seminar	Skill development
II	Solid-state and Material Chemistry	Employability
II	Characterization Methods for Materials	Employability
II	Industrial Chemistry – Food, Agro and Pharmaceutical Chemistry	Employability
II	Organic Chemistry-2-Lab	Employability
II	Inorganic Chemistry-2-Lab	Employability

II	Industrial Training – Phase 1	Entrepreneurship
II	Mini Project	Employability
II	Industrial Applications of Nanomaterials and Catalysts	Employability
II	Major Project	Employability
II	Industrial Training – Phase II	Entrepreneurship
	Elective (EL-1)	
II	Surface and Interfacial Chemistry (EL-1)	Employability
II	Advanced Organic Chemistry (EL-1)	Employability
II	Biological Chemistry (EL-1)	Employability
	Elective (EL-2)	
II	Environmental and Sustainable Chemistry (EL-2)	Employability
II	IPR, TQM and Technology Management (EL-2)	Entrepreneurship
II	Polymers and Elastomers (EL-2)	Employability
	Elective (EL-3)	
II	Stereo-selective Organic Synthesis (EL-3)	Employability
II	Industrial Electrochemistry and Batteries (EL-3)	Employability
II	Medicinal Chemistry (EL-3)	Employability

Chairman, BoS

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Annexure – III

List of New Courses in the R20 M.Sc. Chemistry Curriculum

S.No	Year - Semester	Name of the course
1	I Year – I Semester	Inorganic Chemistry – 1
2	I Year – I Semester	Organic Chemistry – 1
3	I Year – I Semester	Physical Chemistry – 1
4	I Year – I Semester	Analytical Chemistry
5	I Year – I Semester	Mathematics and Symmetry for Chemistry
6	I Year – I Semester	Basics of Computers
7	I Year – I Semester	Inorganic Chemistry – Lab
8	I Year – I Semester	Physical Chemistry – Lab
9	I Year – II Semester	Organic Chemistry – 2
10	I Year – II Semester	Physical Chemistry – 2
11	I Year – II Semester	Inorganic Chemistry – 2
12	I Year – II Semester	Spectroscopic Methods for Chemical Analysis
13	I Year – II Semester	Organic Chemistry -1-Lab
14	I Year – II Semester	Physical Chemistry-2-Lab
15	I Year – II Semester	Computational Chemistry Lab
16	I Year – II Semester	Seminar
17	II Year – III Semester	Solid-state and Material Chemistry
18	II Year – III Semester	Characterization Methods for Materials
19	II Year – III Semester	Industrial Chemistry – Food, Agro and Pharmaceutical Chemistry
20	II Year – III Semester	Organic Chemistry-2-Lab
21	II Year – III Semester	Inorganic Chemistry-2-Lab
22	II Year – III Semester	Industrial Training – [illegible]
23	II Year – III Semester	Mini Project

24	II Year – IV Semester	Industrial Applications of Nanomaterials and Catalysts
25	II Year – IV Semester	Major Project
26	II Year – IV Semester	Industrial Training – Phase II
27	Elective (EL-1)	Surface and Interfacial Chemistry (EL-1)
28	Elective (EL-1)	Advanced Organic Chemistry (EL-1)
29	Elective (EL-1)	Biological Chemistry (EL-1)
30	Elective (EL-2)	Environmental and Sustainable Chemistry (EL-2)
31	Elective (EL-2)	IPR, TQM and Technology Management (EL-2)
32	Elective (EL-2)	Polymers and Elastomers (EL-2)
33	Elective (EL-3)	Stereo-selective Organic Synthesis (EL-3)
34	Elective (EL-3)	Industrial Electrochemistry and Batteries (EL-3)
35	Elective (EL-3)	Medicinal Chemistry (EL-3)

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