



Anekant Education Society's

**Tuljaram Chaturchand College**  
**of Arts, Science, Commerce, Baramati**  
(Autonomous)

**DEPARTMENT OF CHEMISTRY**

(Faculty of Science and Technology)

**Minutes of Board of Studies Meeting No. 1**

**Date of Meeting: 09/04/2019**

**Venue: Department of Chemistry**



**April-2019**

Anekant Education Society's  
**Tuljaram Chaturchand College of Arts, Science and Commerce, Baramati**  
(Autonomous)

**Department of Chemistry**

**NOTICE**

Date: 04/04/2019

**Board of Studies Meeting**

All members of Board of Studies in Chemistry are here by informed that, as per notice from College authority, our BOS meeting is organized on **Tuesday, 09<sup>th</sup> April 2019 at 11.00 am** in the HOD office of Department of Chemistry. As an estimated member of the board, you are invited for this meeting. Your presence and inputs during the meeting would be greatly appreciated.

**AGENDA OF THE MEETING**

**The agenda of the meeting included the following subjects:**

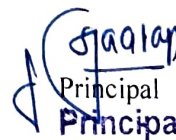
1. To design and approve course and credit structure for the B.Sc. and M. Sc. programme in accordance with 2019 pattern.
2. To prepare and approve curriculum of F.Y.B.Sc. Semester-I (2019 pattern) to be implemented from the academic year 2019-2020.
3. To prepare and approve curriculum of M.Sc.-I Semester-I (2019 pattern) to be implemented from the academic year 2019-2020.
4. To prepare and approve curriculum of certificate courses for UG and PG programme as per 2019 pattern.
5. To discuss and incorporate the relevant feedbacks of the stakeholders (students, teachers, parents, alumni and employers) in the curriculum.
6. Any other issue with the permission of the chair.



Chairman  
Board of Studies in Chemistry

**Head**  
**DEPARTMENT OF CHEMISTRY**  
**Tuljaram Chaturchand College**  
**Baramati (Dist.Pune)**



  
Principal

**Tuljaram Chaturchand College**  
**Baramati**

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**Department of Chemistry**

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2. To prepare and approve curriculum of F.Y.B.Sc. Semester-I (2019 pattern) to be implemented from the academic year 2019-2020.
3. To prepare and approve curriculum of M.Sc.-I Semester-I (2019 pattern) to be implemented from the academic year 2019-2020.
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5. To discuss and incorporate the relevant feedbacks of the stakeholders (students, teachers, parents, alumni and employers) in the curriculum.
6. Any other issue with the permission of the chair.



## List of Members Presented for the BOS Meeting

The following internal and external BOS members were attended the Board of Studies

Sr.No.	Name of Member	Designation
1.	<b>Mr. Sanjay R. Kale</b> Associate Professor, Department of Chemistry, T. C. College, Baramati.	Chairman
2.	<b>Mr. Havappa M. Wadde</b> Head & Associate Professor, Department of Chemistry T. C. College, Baramati	Internal Member
3.	<b>Mr. Shrikrushna T. Salunke</b> Associate Professor, Department of Chemistry T. C. College, Baramati	Internal Member
4.	<b>Mr. Bhimrao R. Torane</b> Assistant Professor, Department of Chemistry T. C. College, Baramati	Internal Member
5.	<b>Mr. Maharudra A. Dudhe</b> Assistant Professor, Department of Chemistry, T. C. College, Baramati	Internal Member
6.	<b>Mr. Ravikiranamrut R. Gandhi</b> Assistant Professor, Department of Chemistry T. C. College, Baramati	Internal Member
7.	<b>Mr. Vaibhav P. Landage</b> Assistant Professor, Department of Chemistry T. C. College, Baramati	Internal Member
8.	<b>Dr. Yogesh N. Indulkar</b> Assistant Professor, Department of Chemistry T. C. College, Baramati	Internal Member
9.	<b>Dr. Rahul S. Bhondwe</b> Assistant Professor, Department of Chemistry T. C. College, Baramati	Internal Member
10.	<b>Dr. S. R. Pujari</b> Associate Professor, Department of Chemistry DBF, Dayanand College, Solapur	External Member from other University
11.	<b>Dr. Hanmant Gurav</b> Scientist, Reliance Petrochemicals, Mumbai.	Meritorious Alumni
12.	<b>Ms. Jyoti Tukaram Waghmode</b> T. C. College, Baramati	PG Student
13.	<b>Mr. Sushant Shekhar Kale</b> T. C. College, Baramati	UG Student



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**Department of Chemistry**

**Credit Structure B.Sc. 2019 Pattern**

Class	Pattern	Semester	Course Code	Course Title	Course Type	No. of Credits
<b>First Year</b>						
F.Y.B.Sc	2019	I	CHEM1101	Physical and Inorganic Chemistry I	Theory	02
F.Y.B.Sc	2019	I	CHEM1102	Organic and Inorganic Chemistry I	Theory	02
F.Y.B.Sc	2019	I	CHEM1103	Chemistry Practical I	Practical	03
F.Y.B.Sc	2019	II	CHEM1201	Physical and Inorganic Chemistry II	Theory	02
F.Y.B.Sc	2019	II	CHEM1202	Organic and Inorganic Chemistry II	Theory	02
F.Y.B.Sc	2019	II	CHEM1203	Chemistry Practical II	Practical	03
			Certificate Course			
<b>Second Year</b>						
S.Y.B.Sc	2019	III	CHEM2301	Physical and Analytical Chemistry I	Theory	03
S.Y.B.Sc	2019	III	CHEM2302	Organic and Inorganic Chemistry I	Theory	03
S.Y.B.Sc	2019	III	CHEM2303	Chemistry Practical III	Practical	03
			Certificate Course			
S.Y.B.Sc	2019	IV	CHEM2401	Physical and Analytical Chemistry I	Theory	03





S.Y.B.Sc	2019	IV	CHEM2402	Organic and Inorganic Chemistry I	Theory	03
S.Y.B.Sc	2019	IV	CHEM2403	Chemistry Practical III	Practical	03
			Certificate Course			
<b>Third Year</b>						
T.Y.B.Sc	2019	V	CHEM3501	Physical Chemistry I	Theory	03
T.Y.B.Sc	2019	V	CHEM3502	Inorganic Chemistry I	Theory	03
T.Y.B.Sc	2019	V	CHEM3503	Organic Chemistry I	Theory	03
T.Y.B.Sc	2019	V	CHEM3504	Analytical Chemistry I	Theory	03
T.Y.B.Sc	2019	V	CHEM3505	Industrial Chemistry I	Theory	03
T.Y.B.Sc	2019	V	CHEM3506 A	Nuclear Chemistry I	Elective Theory	03
T.Y.B.Sc	2019	V	CHEM3506 B	Polymer Chemistry I	Elective Theory	03
T.Y.B.Sc	2019	V	CHEM3506 C	Introduction to Biochemistry and Molecular Biology I	Elective Theory	03
T.Y.B.Sc	2019	V	CHEM3506 D	Environmental and Green Chemistry I	Elective Theory	03
T.Y.B.Sc	2019	V	CHEM3506 E	Agriculture Chemistry	Elective Theory	03
T.Y.B.Sc	2019	V	CHEM3506 F	Synthesis of Nanomaterials and Nano toxicology	Elective Theory	03
T.Y.B.Sc	2019	V	CHEM3507	Physical Chemistry Practical I	Practical	03
T.Y.B.Sc	2019	V	CHEM3508	Inorganic Chemistry Practical I	Practical	03
T.Y.B.Sc	2019	V	CHEM3509	Organic Chemistry Practical I	Practical	03
T.Y.B.Sc	2019	VI	CHEM3601	Physical Chemistry II	Theory	03
T.Y.B.Sc	2019	VI	CHEM3602	Inorganic	Theory	03



				Chemistry II		
T.Y.B.Sc	2019	VI	CHEM3603	Organic Chemistry II	Theory	03
T.Y.B.Sc	2019	VI	CHEM3604	Analytical Chemistry II	Theory	03
T.Y.B.Sc	2019	VI	CHEM3605	Industrial Chemistry II	Theory	03
T.Y.B.Sc	2019	VI	CHEM3606 A	Nuclear Chemistry II	Elective Theory	03
T.Y.B.Sc	2019	VI	CHEM3606 B	Polymer Chemistry II	Elective Theory	03
T.Y.B.Sc	2019	VI	CHEM3606 C	Introduction to Biochemistry and Molecular Biology II	Elective Theory	03
T.Y.B.Sc	2019	VI	CHEM3606 D	Environmental and Green Chemistry II	Elective Theory	03
T.Y.B.Sc	2019	VI	CHEM3606 E	Dairy Chemistry	Elective Theory	03
T.Y.B.Sc	2019	VI	CHEM3606 F	Environmental Nanotechnology and Applications	Elective Theory	03
T.Y.B.Sc	2019	VI	CHEM3607	Physical Chemistry Practical II	Practical/Project	03
T.Y.B.Sc	2019	VI	CHEM3608	Inorganic Chemistry Practical II	Practical/Project	03
T.Y.B.Sc	2019	VI	CHEM3609	Organic Chemistry Practical II	Practical/Project	03



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**Department of Chemistry**

**Credit Structure M.Sc. 2019 Pattern**

Class	Pattern	Semester	Course Code	Course Title	Course Type	No. of Credits
<b>First Year</b>						
M. Sc. I	2019	I	CHP-4101	Fundamentals of Physical Chemistry- I	Theory	04
M. Sc. I	2019	I	CHI-4102	Molecular Symmetry and Chemistry of P- block elements	Theory	04
M. Sc. I	2019	I	CHO-4103	Basic Organic Chemistry	Theory	04
M. Sc. I	2019	I	CHA-4104	Safety in Chemical Laboratory and Good Laboratory Practices	Theory	04
M. Sc. I	2019	I	CHP-4105	Physical Chemistry Practical	Practical	04
M. Sc. I	2019	I	CHO-4106	Organic Chemistry Practical	Practical	04
<b>Second Year (Organic Chemistry)</b>						
M. Sc. I	2019	II	CHP-4201	Fundamentals of Physical Chemistry- II	Theory	04
M. Sc. I	2019	II	CHI- 4202	Coordination and Bioinorganic Chemistry	Theory	04
M. Sc. I	2019	II	CHO-4203	Synthetic organic chemistry and Spectroscopy	Theory	04
M. Sc. I	2019	II	CHA-4204	General Chemistry	Theory	04
M. Sc. I	2019	II	CHI-4205	Inorganic Chemistry Practical	Practical	04
M. Sc. I	2019	II	CHA-4206	Analytical Chemistry Practical	Practical	04
			Certificate Course			02
M. Sc. II	2019	III	CHO-5301	Designing of organic synthesis and Heterocyclic Chemistry	Theory	04
M. Sc. II	2019	III	CHO-5302	Spectroscopic Methods in	Theory	04





				Structure Determination		
M. Sc. II	2019	III	CHO-5303	Organic Stereochemistry-I and Organic Reaction Mechanism	Theory	04
M. Sc. II	2019	III	CHO-5304	Photochemistry, Free radicals and Pericyclic Reactions	Elective Theory	04
M. Sc. II	2019	III	CHO-5305	Single stage preparations	Practical	04
M. Sc. II	2019	III	CHO-5306	Double and multiple stage preparations	Practical	04
M. Sc. II	2019	III	Certificate Course CCAug22	Instrumental methods for chemical analysis	Theory + Practical	02
M. Sc. II	2019	III	SD:23	Skill Development Course	Theory + Practical	02
M. Sc. II	2019	IV	CHO-5401	Chemistry of Natural Products-I	Theory	04
M. Sc. II	2019	IV	CHO-5402	Advanced Synthetic Organic Chemistry	Theory	04
M. Sc. II	2019	IV	CHO-5403	Biomolecules, Org chemistry of drug design and chiral drugs	Theory	04
M. Sc. II	2019	IV	CHO-5404:	Organic stereochemistry II and Asymmetric Synthesis	Elective Theory	04
M. Sc. II	2019	IV	CHO-5405	Innovative experiments in organic chemistry	Practical	04
M. Sc. II	2019	IV	CHO-5406	Project work	Project	04
M. Sc. II	2019	IV	SD:24	Skill Development Course	Theory + Practical	02

**Second Year (Inorganic Chemistry)**

M. Sc. II	2019	III	CHI-5301	Organometallic Chemistry & Homogeneous catalysis	Theory	04
M. Sc. II	2019	III	CHI-5302	Inorganic reaction mechanism and photochemistry	Theory	04
M. Sc. II	2019	III	CHI-5303	Physical Methods in Inorganic Chemistry	Theory	04
M. Sc. II	2019	III	CHI-5304	Bioinorganic and Inorganic medicinal chemistry	Elective Theory	04
M. Sc. II	2019	III	CHI-5305	Analysis, Estimations and computer applications (4 Credit)	Practical	04



M. Sc. II	2019	III	CHI- 5306	Inorganic preparations and Instrumental analysis (4 Credit)	Practical	04
M. Sc. II	2019	III	Certificate Course CCAug22	Instrumental methods for chemical analysis	Theory + Practical	02
M. Sc. II	2019	III	SD:23	Skill Development Course	Theory + Practical	02
M. Sc. II	2019	IV	CHI-5401	Heterogeneous Catalysis and Inorganic polymers	Theory	04
M. Sc. II	2019	IV	CHI: 5402	Material science I: Inorganic materials & solid state chemistry	Theory	04
M. Sc. II	2019	IV	CHI: 5403	Material Science-II: Nanomaterials	Theory	04
M. Sc. II	2019	IV	CHI: 5404	Inorganic applications in industrial and environmental chemistry	Elective Theory	04
M. Sc. II	2019	IV	CHI- 5405	Extended practical in inorganic chemistry	Practical	04
M. Sc. II	2019	IV	CHI- 5406	Project work	Project	04
M. Sc. II	2019	IV	SD:24	Skill Development Course	Theory + practical	02
<b>Second Year (Analytical Chemistry)</b>						
M. Sc. II	2019	III	CHA-5301	Analytical Method Development & Validation, Nanotechnology	Theory	04
M. Sc. II	2019	III	CHA-5302	Electrochemical Methods and Food Analysis	Theory	04
M. Sc. II	2019	III	CHA-5303	Pharmaceutical Analysis	Theory	04
M. Sc. II	2019	III	CHA-5304	Analytical Spectroscopy	Elective Theory	04
M. Sc. II	2019	III	CHA-5305	Analysis of Materials	Practical	04
M. Sc. II	2019	III	CHA-5306	Instrumental Analysis	Practical	04
M. Sc. II	2019	III	Certificate Course CCAug22	Instrumental methods for chemical analysis	Theory + practical	02
M. Sc. II	2019	III	SD:23	Skill Development Course	Theory +	02



					Practical	
M. Sc. II	2019	IV	CHA-5401	Forensic science	Theory	04
M. Sc. II	2019	IV	CHA-5402	Advances in Analytical Techniques	Theory	04
M. Sc. II	2019	IV	CHA-5403	Analytical methods for Analysis of fertilizers, detergents, Water, and Polymer, Paint and Pigment	Theory	04
M. Sc. II	2019	IV	CHA-5404	Method of Analysis and Applications	Elective Theory	04
M. Sc. II	2019	IV	CHA-5405	Analysis of pharmaceutical, food and Bio- analytical samples	Practical	04
M. Sc. II	2019	IV	CHA-5406	Project work	Project	04
M. Sc. II	2019	IV	SD:24	Skill Development Course	Theory + Practical	02



BOS in Chemistry meeting held on **Tuesday, 09<sup>th</sup> April 2019.**

## **MINUTES OF THE MEETING**

As per the Notice issued by the college, the meeting of Board of Studies in Chemistry was successfully held on **Tuesday, 09<sup>th</sup> April 2019.** at 11:00 am in the HOD Office, Department of Chemistry, T. C. College, Baramati. The meeting took place as per the guidelines and protocols set by the college under the guidance of Mr. Sanjay R. Kale, Chairman of the Board of Studies in Chemistry. The meeting commenced with a warm welcome to all the esteemed members, followed by a brief introduction of the meeting's objectives.

During the meeting, fruitful discussions were held on the items mentioned in the circulated agenda. We are pleased to inform you that the following resolutions were made during the BOS meeting.

**1. To design and approve course and credit structure for the B. Sc. and M. Sc. programme in accordance with 2019 pattern.**

The course and credit structure for the B.Sc. and M.Sc. programme in accordance with 2019 pattern was prepared by the faculty members as per guidelines set by the college and University. The detailed distribution of credits allotted to each course/subject for B.Sc. and M. Sc. programme is represented in it. Mr. Sanjay R. Kale, Chairman informed and explained this item to all the members. After the discussion it was approved.

**Resolution No. 1:** The course and credit structure for the B.Sc. and M. Sc. programme (2019 pattern) has been unanimously approved by all members of the BOS.

**2. To prepare and approve curriculum of F.Y.B.Sc. Semester-I (2019 pattern) to be implemented from the academic year 2019-2020.**

The Board of Studies (BOS) members meticulously designed and crafted the curriculum for Semester I of the F.Y.B.Sc program well in advance of the BOS meeting. This preliminary draft was then shared with all BOS members for their input and suggestions to enhance its quality. During the meeting, Mr. Bhimrao Torane presented the curriculum on a course-by-course basis, and the recommendations and valuable insights provided by the BOS members were thoughtfully incorporated into the curriculum. Dr. S. R. Pujari specifically recommended maintaining consistency in the sub-points of all chapters.





In light of the constructive suggestions offered by the BOS members, the curriculum structure underwent necessary revisions. After thorough deliberation and careful consideration, the curriculum of following courses was presented for approval during the BOS meeting.

Class	Pattern	Semester	Course Code	Course Title	Course Type	No. of Credits
F.Y.B.Sc	2019	I	CHEM1101	Physical and Inorganic Chemistry I	Theory	02
F.Y.B.Sc	2019	I	CHEM1102	Organic and Inorganic Chemistry I	Theory	02
F.Y.B.Sc	2019	I	CHEM1103	Chemistry Practical I	Practical	03

**Resolution No. 2:** The curriculum for F.Y.B.Sc. Semester-I (2019 pattern) has been unanimously approved by all members of the BOS.

**3. To prepare and approve curriculum of M.Sc.-I Semester-I (2019 pattern) to be implemented from the academic year 2019-2020.**

The Board of Studies (BOS) members meticulously designed and crafted the curriculum for M.Sc.-I Semester I (2022 pattern) program well in advance of the BOS meeting. This preliminary draft was then shared with all BOS members for their input and suggestions to enhance its quality. During the meeting, Dr. Rahul Bhondwe presented the curriculum on a course-by-course basis, and the recommendations and valuable insights provided by the BOS members were thoughtfully incorporated into the curriculum. During the discussion, some minor changes were suggested by the board members. The board thoroughly discussed and finalized the syllabus for the courses of M.Sc. I, Semester-I, (2019 Pattern)

In light of the constructive suggestions offered by the BOS members, the curriculum structure underwent necessary revisions. After thorough deliberation and careful consideration, the curriculum of following courses was presented for approval during the BOS meeting.





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M. Sc. I	2019	I	CHP-4101	Fundamentals of Physical Chemistry- I	Theory	04
M. Sc. I	2019	I	CHI-4102	Molecular Symmetry and Chemistry of P- block elements	Theory	04
M. Sc. I	2019	I	CHO-4103	Basic Organic Chemistry	Theory	04
M. Sc. I	2019	I	CHA-4104	Safety in Chemical Laboratory and Good Laboratory Practices	Theory	04
M. Sc. I	2019	I	CHP-4105	Physical Chemistry Practical	Practical	04
M. Sc. I	2019	I	CHO-4106	Organic Chemistry Practical	Practical	04

**Resolution No. 3:** The curriculum for M.Sc.-I Semester I (2019 pattern) has been unanimously approved by all members of the BOS.

**4. To prepare and approve curriculum of certificate courses for UG and PG programme as per 2019 pattern.**

The curriculum of certificate courses for PG programme was prepared and presented to BOS members. The detail syllabus of certificate course, "Instrumental methods of Chemical Analysis" was explained by Mr. S. T. Salunke, coordinator. Dr. S.R. Pujari suggested that, themore practicals related to this course are to be carried out as it is very beneficial to the students. All members agreed the same and the syllabus and structure of the course (theory + practicals) was approved and forwarded to Academic council.

Class	Pattern	Sem	Code	Title and Topics	Nature	Credit points
M. Sc. I	2019	I	CC-1	Instrumental methods of Chemical Analysis	Theory + Practical	02

**Resolution No. 4:** The curriculum for certificate courses for UG and PG programme has been unanimously approved by all members of the BOS.

**5. To discuss and incorporate the relevant feedbacks of the stakeholders (students, teachers, parents, alumni and employers) in the curriculum.**



The feedback and suggestions from different stakeholders were considered while designing the credit format for UG, PG programme and preparation of curriculum for F.Y.B.Sc. Sem I and M.Sc. Sem I. The BOS members reviewed the relevant feedback and suggestions from the students, alumni, teacher, parents and employers. Accordingly, these inclusions and modifications were incorporated in the curriculum after approval of BOS members.

**Resolution No. 5:** The relevant modifications have been unanimously approved by all the BOS members.

**6. Any other issue with the permission of the chair.**

As there were no any other subject/topic raised by BOS member, the meeting was ended with vote of thanks by the Chairman.



Chairman

Board of Studies in Chemistry

**Head**

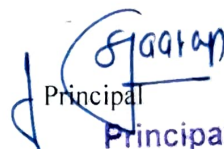
**DEPARTMENT OF CHEMISTRY  
Tuljaram Chaturchand College  
Baramati (Dist.Pune)**



Coordinator

**Coordinator**

**Internal Quality Assurance Cell  
Tuljaram Chaturchand College of  
Arts, Science and Commerce,  
Baramati (Pune)-413102**



Principal

**Principal**

**Tuljaram Chaturchand College  
Baramati**

