

Minutes of BOS–Jan 2022 – May 2022

Department of Chemistry

Minutes of the BOS Meeting-2021 (UG –B.E/B.Tech/B.Sc/PG) meeting held on 4th Jan, 2022 at 03.30 P.M. Department of Chemistry, Sathyabama Institute of Science and Technology, Chennai.

Members Present:

S.No.	Name of the Staff	Members	Signature with seal
1.	Dr.J.Karthikeyan, (Associate Professor) Head - Chemistry	Convener	J. Karthikeyan
2.	Dr.P.Bhyrappa, (Professor) Dept.of Chemistry, IITM.	BOS member	P. Bhyrappa
3.	Dr.V.Subramanian, (Chief Scientist) Inorganic & Physical Chemistry, CLRI, Chennai.	BOS member	V. Subramanian
4.	Dr.V.Kavitha (Professor)	Member	V. Kavitha
5.	Dr.T.Krithiga (Associate Professor)	Member	T. Krithiga
6.	Dr.S.Supriya (Associate Professor)	Member	S. Supriya
7.	Dr.K.Chennakesavalu Reddy (Associate Professor)	Member	K. Chennakesavalu Reddy
8.	Dr.S.Sunitha (Assistant Professor)	Member	S. Sunitha

Absent - NIL

Dr. J.Karthikeyan, Associate Professor & Head, Convener of BOS, during his introductory comments has explained the existing syllabus of 1st year B.E/B.Tech (2019 Regulation), B.Sc (2021 Regulation), M.Sc., (2019 Regulation), and also explained the outcome of Syllabus and Student performance in the university examination.

After a brief remark, the agenda items listed below were considered for discussion and the following resolutions were passed.

1. SCYA 1101 – Engineering Chemistry (Common to all branches of I year BE /B.Tech)
2. SCYA 2101- Engineering Chemistry Lab (Common to all branches of I year BE/B.Tech)
3. B.Sc., M.Sc., Chemistry syllabus

2. SCYA 2101- Engineering Chemistry Lab (Common to all branches of I year BE/B.Tech)
3. B.Sc., M.Sc., Chemistry syllabus
4. Online class for theory and practical courses – Evaluation scheme and Norms

Points of Revision for UG/PG Courses

SCYA1101

- Dr.P.Bhyrappa, Dr.V.Subraminian, and Dr.Anbukulanthainathan recommended that Engineering chemistry (Common to all branches) processed without any correction.

B.Sc Syllabus

The B.Sc syllabus approved by the BOS members and academic council during BOS meeting held for the period Jan 2021 – May 2021 will be implemented for the B.Sc Chemistry programme, 2021 – 2024 batch.

New Courses Introduced are

- SCYA1201- General Chemistry-II, Unit-1: Liquid states and Unit 5: Solid States are introduced under this course for the current syllabus.

M.Sc Syllabus

- Dr.P.Bhyrappa, Dr.V.Subraminian, and Dr.Anbukulanthainathan recommended that M.Sc syllabus can be processed without any correction.

Approval for Scheme for conduction of offline classes (Physical Mode)

As the current Covid-19 situation decreases, the management has decided to conduct offline classes and examinations for students. The Evaluation Scheme and norms followed prior to June 2020 (as described in curriculum) will be continued with the approval of the members without any change.

Conclusion:

As per recommendation by the members, the syllabus for all the courses continued without any major corrections for the academic year 2021 – 2022. The BOS members approved the B.Sc. Chemistry syllabus and evaluation scheme prescribed in the curriculum, will be implemented for the period Jan 2022 – May 2022.

ITEM No: BOS/Jan 2022:

For Board of council
approval

ITEM No: BOS/Jan 2022:

For Board of council
approval

J. K. S. S. S.
HEAD OF THE DEPARTMENT
DEPARTMENT OF CHEMISTRY
SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)
Jeppiaar Nagar, Rajiv Gandhi Salai
Chennai – 600 119

Minutes of BOS–July 2021 – Dec 2021

Department of Chemistry

Minutes of the Virtual BOS Meeting-2021 (UG –B.E/B.Tech/B.Sc/PG) meeting held on 4th June, 2021 at 03.30 P.M. Department of Chemistry, Sathyabama Institute of Science and Technology, Chennai.

Zoom credentials: Meeting ID: 871 5881 6277 Passcode: 123456

Members Present:

S.No.	Name of the Staff	Members	Signature with seal
1.	Dr.J.Karthikeyan, (Associate Professor) Head - Chemistry	Convener	J. Karthikeyan
2.	Dr.P.Bhyrappa, (Professor) Dept.of Chemistry, IITM.	BOS member	P. Bhyrappa
3.	Dr.V.Subramanian, (Chief Scientist) Inorganic & Physical Chemistry, CLRI, Chennai.	BOS member	V. Subramanian
4.	Dr.V.Kavitha (Professor)	Member	V. Kavitha
5.	Dr.T.Krithiga (Associate Professor)	Member	T. Krithiga
6.	Dr.S.Supriya (Associate Professor)	Member	S. Supriya
7.	Dr.K.Chennakesavalu Reddy (Associate Professor)	Member	K. Chennakesavalu Reddy
8.	Dr.S.Sunitha (Assistant Professor)	Member	S. Sunitha

Absent - NIL

Dr. J.Karthikeyan, Associate Professor & Head, Convener of BOS, during his introductory comments has explained the existing syllabus of Ist year B.E/B.Tech (2019 Regulation), B.Sc (2021 Regulation), M.Sc., (2019 Regulation), and also explained the outcome of Syllabus and Student performance in the university examination.

After a brief remark, the agenda items listed below were considered for discussion and the following resolutions were passed.

1. SCYA 1101 – Engineering Chemistry (Common to all branches of I year BE /B.Tech)
2. SCYA 2101- Engineering Chemistry Lab (Common to all branches of I year BE/B.Tech)

3. B.Sc., M.Sc., Chemistry syllabus
4. Online class for theory and practical courses – Evaluation scheme and Norms

Points of Revision for UG/PG Courses

SCYA1101

- Dr.P.Bhyrappa, Dr.V.Subraminian, and Dr.Anbukulanthainathan recommended that Engineering chemistry (Common to all branches) processed without any correction.

B.Sc Syllabus

The B.Sc syllabus approved by the BOS members and academic council during BOS meeting held for the period Jan 2021 – May 2021 will be implemented for the B.Sc Chemistry programme, 2021 – 2024 batch.

New Courses Introduced are

- SCYA1103- General Chemistry-I, Unit 1- Atomic structure and quantum mechanics is introduced.
- SCYA2102- Volumetric Analysis, three new experiments are added to the previous syllabus
 - Laboratory safety and Hygiene
 - Preparations of Reagents and Standard Solutions
 - Calibration of volumetric apparatus: Burette, pipette and standard flasks.
- SCYA2103- Preparatory Inorganic Chemistry, Two experiments are added
 - Preparation of Reinecke's Salt, $[\text{Ni}(\text{en})_3]\text{Cl}_2$ complex
 - Preparation of trithiourea copper(I)sulphate dihydrate

M.Sc Syllabus

- Dr.P.Bhyrappa, Dr.V.Subraminian, and Dr.Anbukulanthainathan recommended that M.Sc syllabus can be processed without any correction.

Approval for Scheme for conduction of online classes:

The theory and practical classes and examination conducted through online mode was satisfactory to the students. Due to the current Covid-19 situation, the management has decided to conduct online classes and online examinations for students. The Evaluation Scheme and norms followed during the period Jan 2021- May 2021 will be continued with the approval of the members without any change.

Conclusion:

As per recommendation by the members, the syllabus for all the courses continued without any major corrections for the academic year 2021 – 2022. The BOS members approved the B.Sc. Chemistry syllabus and evaluation scheme, will be implemented for the period July 2021 – Dec 2021.

ITEM No: BOS/June 2021:

For Board of council
approval

ITEM No: BOS/June 2021:

For Board of council
approval

J. Iyer
HEAD OF THE DEPARTMENT
DEPARTMENT OF CHEMISTRY
SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY,
Jeppiaar Nagar, Rajiv Gandhi Salai
Chennai – 600 119



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY

(DEEMED TO BE UNIVERSITY)

Accredited with "A" Grade by NAAC

Jepplaar Nagar, Rajiv Gandhi Salai, Chennai - 600 119.

Phone: 044 - 2450 3150 / 51 / 52 / 54 / 55 Fax: 044 - 2450 2344

www.sathyabama.ac.in



Minutes of BOS – Jan 2021- May 2021

Department of Chemistry

Minutes of the Virtual BOS Meeting-2020 (UG –B.E/B.Tech/B.Sc/PG) meeting held on 2nd Jan, 2021 at 04.30 P.M. Department of Chemistry, Sathyabama Institute of Science and Technology, Chennai.

Zoom credentials: Meeting ID: 852 8704 7483 Passcode: 123456

Members Present:

S.No.	Name of the Staff	Members	Signature with seal
1.	Dr.J.Karthikeyan, (Associate Professor) Head - Chemistry	Convener	J. Karthikeyan
2.	Dr.P.Bhyrappa, (Professor) Dept.of Chemistry, IITM.	BOS member	P. Bhyrappa
3.	Dr.V.Subramanian, (Chief Scientist) Inorganic & Physical Chemistry, CLRI, Chennai.	BOS member	V. Subramanian
4.	Dr.Anbukulanthainathan, Chief Scientist, CECRI, Karaikudi	BOS member	Anbukulanthainathan
5.	Dr.A.SheikMideen (Professor)	Member	A. SheikMideen
6.	Dr.V.Kavitha (Professor)	Member	V. Kavitha
7.	Dr.T.Krithiga (Associate Professor)	Member	T. Krithiga
8.	Dr.S.Supriya (Associate Professor)	Member	S. Supriya
9.	Dr.K.Chennakesavalu Reddy (Associate Professor)	Member	K. Chennakesavalu Reddy
10.	Dr.S.Sunitha (Assistant Professor)	Member	S. Sunitha

Absent - NIL



Dr. J.Karthikeyan, Associate Professor & Head, Convener of BOS, during his introductory comments has explained the existing syllabus of Ist year B.E/B.Tech (2019 Regulation), B.Sc (2015 Regulation), M.Sc., (2019 Regulation), and also **explained the outcome of Syllabus and Student performance in the university examination.**

After a brief remark, the agenda items listed below were considered for discussion and the following resolutions were passed.

1. SCYA 1101 – Engineering Chemistry (Common to all branches of I year BE /B.Tech)
2. SCYA 2101- Engineering Chemistry Lab (Common to all branches of I year BE/B.Tech)
3. B.Sc., M.Sc., Chemistry syllabus.
4. Online classes through zoom

Points of Revision for UG/PG Courses

SCYA1101

- Dr.P.Bhyrappa, Dr.V.Subraminian, and Dr.Anbukulanthainathan recommended that Engineering chemistry (Common to all branches) processed without any correction.

B.Sc Syllabus

The B.Sc syllabus was completely revised and the suggestions of the Members were included in the syllabus. The members has approved the syllabus and will be followed for B.Sc Chemistry, 2021 -2024 batch after approval from academic council. According to the suggestion of the members the credits of the courses has been uniformly given – Theory courses – 3 credits, Practical courses – 2 credits, Professional training – 3 credits and Project work – 4 credits.

- So as per the suggestion we have revised about 42% and updated copy will be submitted for approval.



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY

(DEEMED TO BE UNIVERSITY)

Accredited with "A" Grade by NAAC

Jeppiaar Nagar, Rajiv Gandhi Salai, Chennai - 600 119

Phone: 044 - 2450 3150 / 51 / 52 / 54 / 55 Fax: 044 - 2450 2344

www.sathyabama.ac.in



- The syllabus for B.Sc., Chemistry as per UGC norms is reframed by the guidance of BOS members.

M.Sc Syllabus

- Dr.P.Bhyrappa, Dr.V.Subraminian, and Dr.Anbukulanthainathan recommended that M.Sc syllabus can be processed without any correction.

Approval for Scheme for conduction of online classes:

The theory and practical classes and examination conducted through online mode was satisfactory to the students. Due to the current Covid-19 situation, the management has decided to conduct online classes and examinations for students. The Evaluation Scheme and norms followed during the period July 2020- Dec 2020 will be continued with the approval of the members without any change.

Conclusion:

As per recommendation by the panel members and stake holders, the syllabus for all the courses continued without any major corrections for the academic year 2020 - 2021. The BOS members approved the evaluation scheme and will be implemented for the period Jan 2021 – May 2021.

ITEM No: BOS/Jan 2021:

For Board of council
approval

ITEM No: BOS/Jan 2021:

For Board of council
approval

J. Iyer
HEAD OF THE DEPARTMENT
DEPARTMENT OF CHEMISTRY
SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)
Jeppiaar Nagar, Rajiv Gandhi Salai
Chennai - 600 119



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY

(DEEMED TO BE UNIVERSITY)

Accredited "A" Grade by NAAC | 12B Status by UGC | Approved by AICTE

www.sathyabama.ac.in

Minutes of BOS – July 2020- Dec 2020

Department of Chemistry

Minutes of the Virtual BOS Meeting-2020 (UG –B.E/B.Tech/B.Sc/PG) meeting held on 20th June, 2020 at 04.30 P.M. Department of Chemistry, Sathyabama Institute of Science and Technology, Chennai.

Meeting ID: 831 1349 9221 Passcode: 123456

Members Present:

S.No.	Name of the Staff	Members	Signature with seal
1.	Dr.J.Karthikeyan, (Associate Professor) Head - Chemistry	Convener	J. Karthikeyan
2.	Dr.P.Bhyrappa, (Professor) Dept.of Chemistry, IITM.	BOS member	P. Bhyrappa
3.	Dr.V.Subramanian, (Chief Scientist) Inorganic & Physical Chemistry, CLRI, Chennai.	BOS member	V. Subramanian
4.	Dr.Anbukulanthainathan, Chief Scientist, CECRI, Karaikudi	BOS member	A. Anbukulanthainathan
5.	Dr.A.Sheik Mideen (Professor)	Member	A. Sheik Mideen
6.	Dr.V.Kavitha (Professor)	Member	V. Kavitha
7.	Dr.T.Krithiga (Associate Professor)	Member	T. Krithiga
8.	Dr.S.Supriya (Associate Professor)	Member	S. Supriya
9.	Dr.K.Chennakesavalu Reddy (Associate Professor)	Member	K. Chennakesavalu Reddy
10.	Dr.S.Sunitha (Assistant Professor)	Member	S. Sunitha

Absent - NIL

Dr.J.Karthikeyan, Associate Professor & Head, Convener of BOS, during his introductory comments has explained the existing syllabus of 1st year B.E/B.Tech (2019 Regulation), B.Sc (2015 Regulation), M.Sc., (2019 Regulation), Online classes, online examination norms and evaluation also need to be discussed.

After a brief remark, the agenda items listed below were considered for discussion and the following resolutions were passed.



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY

(DEEMED TO BE UNIVERSITY)

Accredited "A" Grade by NAAC | 12B Status by UGC | Approved by AICTE

www.sathyabama.ac.in

1. SCYA 1101 – Engineering Chemistry (Common to all branches of I year BE /B.Tech)
2. SCYA2101- Engineering Chemistry Lab (Common to all branches of I year BE/B.Tech)
3. B.Sc., and M.Sc., Chemistry syllabus revision
4. Online Theory and Practical Class (ZOOM)

Points of Revision for UG/PG Courses

SCYA1101

- Dr.P.Bhyrappa, Dr.V.Subraminian, and Dr.Anbukulanthainathan recommended that Engineering chemistry (Common to all branches) processed without any correction.

B.Sc Syllabus

The Members felt that the B.Sc syllabus introduced in the year 2015 was completed by 1st batch of B.Sc., Chemistry and students were graduated in the year June–2020 and thus requires a revision of syllabus for 2020 – 2023 batch students. The revised syllabus will be processed in the next BOS meeting.

M.Sc Syllabus

- They have suggested including, “P.18, SCYA5102, unit 2, last 2 lines: Replace “Molecular Orbital (MO) theory, MO diagrams with and without metal–ligand π bonding in an octahedral complex” by “Limitations of crystal field theory. Ligand field theory, and molecular orbital MO diagrams with and without metal–ligand π bonding in an octahedral and tetrahedral complex.” So as per the suggestion we have replaced and updated copy will be submitted for approval.
- The syllabus for M.Sc., Chemistry as per UGC norms is reframed by the guidance BOS members.



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY

(DEEMED TO BE UNIVERSITY)

Accredited "A" Grade by NAAC | 12B Status by UGC | Approved by AICTE

www.sathyabama.ac.in

Approval for Scheme for conduction of online classes:

Due to the current Covid-19 situation, the management has decided to conduct online classes and examinations for students. The Scheme, norms and suggestions for conducting the online classes were discussed and formulated by the guidance of BOS members.

Theory courses

SCYA1101-Engineering Chemistry course for I B.E/B.Tech, All theory courses of B.Sc Chemistry and M.Sc Chemistry was decide to conduct through online mode.

Evaluation Scheme:

For Each course: The following Scheme should be conducted, evaluated and calculated for internal marks (CAE) and External marks (ESE)

A. Internal Marks – 50 Marks (Assignment – 15 Marks + Quiz – 5 Marks + CAE – 30 Marks)

a. Assignment I – Unit 3 – 15 Marks

Pattern:

Part-A- MCQ – $5 \times 1 = 5$ Marks

Part-B- Shortanswers – $5 \times 1 = 5$ Marks

Part-C- Long answers – $1 \times 5 = 5$ Marks

b. Assignment II – Unit 5 – 15 Marks

Pattern:

Part-A- MCQ – $5 \times 1 = 5$ Marks

Part-B- Short answers – $5 \times 1 = 5$ Marks

Part-C- Long answers – $1 \times 5 = 5$ Marks



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY

(DEEMED TO BE UNIVERSITY)

Accredited "A" Grade by NAAC | 12B Status by UGC | Approved by AICTE

www.sathyabama.ac.in

c. Quiz I – Unit I and Unit II

Pattern: 30 MCQ questions – 5 Marks

d. Quiz II – Unit III and Unit IV

Pattern: 30 MCQ questions – 5 Marks

e. Continuous Assessment Examination – I (CAE-I) – Unit I and Unit II – 30 Marks

Pattern:

Part-A – $5 \times 2 = 10$ Marks

Part-B – $2 \times 10 = 20$ Marks

f. Continuous Assessment Examination – II (CAE-II) - Unit III and Unit IV – 30 Marks

Pattern:

Part-A – $5 \times 2 = 10$ Marks

Part-B – $2 \times 10 = 20$ Marks

B. External Marks – 50 Marks:

The end semester examination will be conducted through online mode.

Pattern:

Multiple Choice Questions (MCQ) – 20 questions – $20 \times 1 = 20$ Marks

Fill in Blanks (FIB) – 10 questions – $10 \times 1 = 10$ Marks

Descriptive – 2 questions – $2 \times 10 = 20$ Marks



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY

(DEEMED TO BE UNIVERSITY)

Accredited "A" Grade by NAAC | 12B Status by UGC | Approved by AICTE

www.sathyabama.ac.in

Practical courses

SCYA2101-Engineering Chemistry lab course for I B.E/B.Tech, All practical courses of B.Sc Chemistry and M.Sc Chemistry was decide to conduct through online mode. The demonstration of the all the experiments will be performed by the Staff through online mode.

Evaluation Scheme:

For Each course: The following Scheme should be conducted, evaluated and calculated for internal marks (CAE) and External Marks (ESE).

Internal Marks (CAE) – 50 Marks (All B.Sc and M.Sc lab courses)

- a. Model written exam – 20 Marks
- b. Viva Voce – 20 Marks
- c. Record – 10 Marks

External Marks (ESE) – 50 Marks (All B.Sc and M.Sc lab courses)

- a. Model written exam – 20 Marks
- b. Viva Voce – 20 Marks
- c. Record – 10 Marks

Internal Marks (CAE) – 25 Marks (B.E/B.Tech lab course – SCYA2101)

- a. Model written exam – 10 Marks
- b. Viva Voce – 10 Marks
- c. Record – 5 Marks

External Marks (ESE) – 25 Marks (B.E/B.Tech lab course – SCYA2101)

- a. Model written exam – 10 Marks
- b. Viva Voce – 10 Marks
- c. Record – 5 Marks



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY

(DEEMED TO BE UNIVERSITY)

Accredited "A" Grade by NAAC | 12B Status by UGC | Approved by AICTE

www.sathyabama.ac.in

Conclusion:

As per recommendation by the members and stake holders, the syllabus for all the courses continued without any major corrections for the academic year 2020 - 2021. The BOS members approved the evaluation scheme and online patterns of teaching and evaluation.

ITEM No: BOS/June2020:

For Board of council
approval

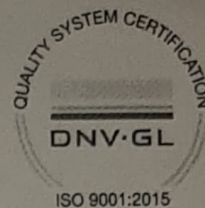
ITEM No:BOS/June 2020:

For Board of council
approval

J. K. K. K.
HEAD OF IHL DEPARTMENT
DEPARTMENT OF CHEMISTRY
SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)
Jeppiyaar Nagar, Rajiv Gandhi Salai
Chennai - 600 119



SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)
(Established under Section 3 of the UGC Act, 1956)
Accredited with 'A' Grade by NAAC
Rajiv Gandhi Road, Jeppiaar Nagar Chennai – 600 119, Tamil Nadu.



Minutes of BOS

Department of Chemistry

Minutes of the BOS Meeting-2019 (UG –B.E/B.Tech/B.Sc/PG) meeting held on 11th April, 2019 at 10.30 A.M. Department of Chemistry, Sathyabama Institute of Science and Technology, Chennai.

Members Present:

S.No.	Name of the Staff	Members	Signature
1.	Dr.Sundar Manoharan, (Vice-Chancellor)	Vice-Chancellor	
2.	Dr.J.Karthikeyan, (Associate Professor) Head - Chemistry	Convener	
3.	Dr.P.Bhyrappa, (Professor) Dept.of Chemistry, IITM.	BOS member	
4.	Dr.V.Subramanian, (Chief Scientist) Inorganic & Physical Chemistry, CLRI, Chennai.	BOS member	
5.	Dr.A.Sheik Mideen (Professor)	Member	
6.	Dr.V.Kavitha (Professor)	Member	
7.	Dr.T.Krithiga (Associate Professor)	Member	
8.	Dr.S.Supriya (Associate Professor)	Member	
9.	Dr.K.Chennakesavalu Reddy (Associate Professor)	Member	
10.	Dr.S.Sunitha (Assistant Professor)	Member	

Absent - NIL

Prof. Dr. J. Karthikeyan Convener of BOS, during his introductory comments has explained the existing syllabus of Ist year B.E/B.Tech, M.Sc., and also **explained in detail about the need for framing the outcome based syllabus as per AICTE/UGC in the current global scenario.** As a part of the action taken on the resolutions of 5th BOS meeting the members were informed about the inclusion of outcome based syllabus for the 2019 – 2020 batch.

After a brief remark, the agenda items listed below were considered for discussion and the following resolutions were passed.

1. SCYA 1101 – Engineering Chemistry (Common to all branches of I year BE /B.Tech)
2. SCYA 2101- Engineering Chemistry Lab (Common to all branches of I year BE/B.Tech)
3. B.Sc., M.Sc., Chemistry



SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)
(Established under Section 3 of the UGC Act, 1956)
Accredited with 'A' Grade by NAAC
Rajiv Gandhi Road, Jeppiaar Nagar Chennai – 600 119, Tamil Nadu.



Absent - NIL

Prof. Dr. J. Karthikeyan Convener of BOS, during his introductory comments has explained the existing syllabus of Ist year B.E/B.Tech, M.Sc., and also **explained in detail about the need for framing the outcome based syllabus as per AICTE/UGC in the current global scenario.** As a part of the action taken on the resolutions of 5th BOS meeting the members were informed about the inclusion of outcome based syllabus for the 2019 – 2020 batch.

After a brief remark, the agenda items listed below were considered for discussion and the following resolutions were passed.

1. SCYA 1101 – Engineering Chemistry (Common to all branches of I year BE /B.Tech)
2. SCYA 2101- Engineering Chemistry Lab (Common to all branches of I year BE/B.Tech)
3. B.Sc., M.Sc., Chemistry

Points of Revision for UG/PG Courses

SCYA1101

- Dr.P.Bhyrappa and Dr.V.Subraminian, recommended that Unit - 1 could not be completed within the stipulated time of 12 h and hence MO of H^{2+} ion molecule is removed.
- Suggested to include microwave spectroscopy in Unit -2.
- Suggested to change the title for Unit -2 and Unit-3 as Molecular Spectroscopy and Functional Materials.
- Suggested to include the 2D Nanomaterials and rearrange the entire Unit -4.
- Recommended to include Nanochemistry by replacing lubricants and composites in Unit-5.



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY

(DEEMED TO BE UNIVERSITY)

(Established under Section 3 of the UGC Act, 1956)

Accredited with 'A' Grade by NAAC

Rajiv Gandhi Road, Jeppiaar Nagar Chennai – 600 119, Tamil Nadu.



- As per the members suggestion, Engineering Chemistry syllabus completely revised (more than 80 %) with new topic such as Unit 1 – replacing Nano materials with Bonds to Bands., Unit 2 Water technology with Molecular Spectroscopy, Unit 3 Electrochemistry with Functional Materials, Unit 4 Insulating materials with Carbon materials for Health, Stealth and Energy and Unit 5 Engineering materials comprises of Nano materials, Phase rule and Fuels.
- The above suggestion were carried out and incorporated in appropriate places.
- New syllabus for Engineering Chemistry (outcome based) as per AICTE/UGC norms with blooms Taxonomy is framed with New Code of SCYA 1101.

B.Sc Syllabus

The Members felt that the syllabus can be retained as such without any modification as the course have been studied in 2017-2020, and a single batch students haven't graduated from the course. The syllabus can be modified/upgraded in the next BOS meeting (if necessary).

M.Sc Syllabus

- As per the members suggestion, M.Sc. Chemistry syllabus has been completely revised (More than 40%) by introducing interdisciplinary course such as Chem informatics, and Computational Chemistry Lab. We replaced Physical Organic Chemistry with new syllabus Applications of Spectroscopy. We have introduced new topics in Organic synthesis and Retro synthetic methods, Coordination Chemistry, Thermodynamics etc,
- Members also suggested revising the certain portions of M.Sc. Chemistry syllabus as per CSIR – NET syllabus for the benefit of students to clear NET/GATE exam. The topics like Environmental chemistry, Green chemistry, Supramolecular chemistry, Bio-inorganic/organic chemistry, need to be considered as elective papers or to be included as a unit in the core subject as it is gaining importance in NET/GATE.



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY **(DEEMED TO BE UNIVERSITY)**

(Established under Section 3 of the UGC Act, 1956)

Accredited with 'A' Grade by NAAC

Rajiv Gandhi Road, Jeppiaar Nagar Chennai – 600 119, Tamil Nadu.



- The syllabus for M.Sc., Chemistry as per UGC norms is reframed by the guidance of BOS members.

Conclusion:

As per recommendation by the members, the syllabus for all the courses has been reframed.

ITEM No: BOS/April 2019:

For Board of council
approval

ITEM No: BOS/April 2019:

For Board of council
approval

J. K. S. K. S.
HEAD OF THE DEPARTMENT
DEPARTMENT OF CHEMISTRY
SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)
Jeppiaar Nagar, Rajiv Gandhi Salai
Chennai - 600 119



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY

(DEEMED TO BE UNIVERSITY)

Accredited with "A" Grade by NAAC

Jeppiaar Nagar, Rajiv Gandhi Salai, Chennai - 600 119.

Phone: 044 - 2450 3150 / 51 / 52 / 54 / 55 Fax: 044 - 2450 2344

www.sathyabama.ac.in



Minutes of Board of Studies – Jan 2019 – May 2019

Department of Chemistry

Minutes of the BOS Meeting-2018 - 2019 (UG –B.E/B.Tech/B.Sc/M.Sc) meeting held on 3rd Jan, 2019 at 10.00 A.M. Department of Chemistry, Sathyabama Institute of Science and Technology, Chennai.

Members Present:

S.No.	Name of the Staff	Members	Signature
1.	Dr.J.Karthikeyan,(Associate Professor) Head, Department of Chemistry	Convener	J. Karthikeyan
2.	Dr. Anbu Kulandainathan Principal Scientist, CECRI	BOS member	A. Kulandainathan
3.	Dr.A.SheikMideen (Professor) Department of Chemistry	Member	A. SheikMideen
4.	Dr. V. Kavitha (Associate Professor) Department of Chemistry	Member	V. Kavitha
5.	Dr. T. Krithiga (Associate Professor) Department of Chemistry	Member	T. Krithiga
6.	Dr. S. Supriya (Associate Professor) Department of Chemistry	Member	S. Supriya
10.	Dr. S. Sunitha (Assistant Professor) Department of Chemistry	Member	S. Sunitha

Absent - NIL

Dr. J.Karthikeyan, Convener BOS, during his introductory comments has explained the existing Ist year B.E/B.Tech (2015 Regulation) both first and second semester, M.Sc., (2015 Regulation) and B.Sc., (2017 Regulation) outcome based syllabus.



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)

Accredited with "A" Grade by NAAC

Jeppiaar Nagar, Rajiv Gandhi Salai, Chennai - 600 119.

Phone: 044 - 2450 3150 / 51 / 52 / 54 / 55 Fax: 044 - 2450 2344

www.sathyabama.ac.in



Resolution:

After the brief introduction regarding the existing outcome based syllabus, the agenda items listed below were considered for discussion and the following resolutions were passed.

SCY1102

- Dr. Anbu Kulandainathan recommended that the outcome based syllabus of SCY1102-Chemistry of Electronic Materials (Common to CSE, ECE, EEE, E&I) for Semester II of B.E/B.Tech can be processed with the following corrections.
- Unit-III: Members felt that Hybrid Physical-Chemical vapour deposition technique can be included under thin film deposition in unit-III
- Unit-II: Members felt that WLN, ROSDAL, SMILES notation for few chemical compounds can be included in unit-V which will make students understand the various notations better.

SCY1103

- Dr. Anbu Kulandainathan recommended that the syllabus of SCY1103-Chemistry of Industrial Materials (Common to Mech, Aero, Auto, Mech&Pro and Civil) for Semester II of B.E/B.Tech with minor changes can be processed without any changes.
- Unit-I: Members felt that the topics Natural gas composition and extraction and the introduction of bioethanol can be included in unit-I
- Unit-II: Members felt that phase diagram of Bismuth-Cadmium system can be included in the Phase equilibria unit.

B.Sc Syllabus

- Dr. Anbu Kulandainathan recommended that the outcome based B.Sc syllabus (Regulation 2017) which was approved in the BOS meeting for the period June 2017 –



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY

(DEEMED TO BE UNIVERSITY)

Accredited with "A" Grade by NAAC

Jeppiaar Nagar, Rajiv Gandhi Salai, Chennai - 600 119.

Phone: 044 - 2450 3150 / 51 / 52 / 54 / 55 Fax: 044 - 2450 2344

www.sathyabama.ac.in



Dec 2017 for the 2017 batch (fourth semester) and 2018 batch (second semester) can be processed without any modification.

M.Sc Syllabus

- Dr. Anbu Kulandainathan recommended that the syllabus of SCY5201-Bioinorganic Chemistry has to be revised completely and condensed into one unit and the remaining four units should be introduced from inorganic chemistry. The other four unit topics have been discussed and incorporated. The course code for the subject has been revised as SCY5204-Advanced Inorganic Chemistry. The members felt that the title of the units can also be revised.
- Unit-I-Organometallic Compounds
- Unit-II-Synthesis of Organometallic Compounds
- Unit-III-Organometallic Catalysts
- Unit-IV-Bioinorganic Chemistry
- Unit-V-Nuclear Chemistry
- Dr. Anbu Kulandainathan recommended that the outcome based remaining M.Sc syllabus (2015 Regulation) for the M.Sc Chemistry 2018 batch and 2019 batch can be handled without any correction.

Conclusion:

As per recommendation by the panel members and stake holders, the syllabus for all the courses continued with the corrections and suggestions incorporated and processed for the academic year 2018 - 2019. The BOS members approved the evaluation scheme and will be implemented for the period Jan 2019 – May 2019.

ITEM No: BOS/Jan 2019:

For Board of council
approval

ITEM No: BOS/Jan 2019:

For Board of council
approval

J. Iyer
HEAD OF THE DEPARTMENT
DEPARTMENT OF CHEMISTRY
SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)
Jeppiaar Nagar, Rajiv Gandhi Salai,
Chennai - 600 119



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY (DEEMED TO BE UNIVERSITY)

(Established under Section 3 of the UGC Act, 1956)

Accredited with 'A' Grade by NAAC

Rajiv Gandhi Road, Jeppiaar Nagar Chennai – 600 119, Tamil Nadu.
India.



Minutes of the BOS Meeting-2018 combined Board of Studies (UG) Meeting held on 21st May, 2018 at 9.30 A.M. Department of Chemistry, Sathyabama Institute of Science and Technology, Chennai.

Members Present:

1. Dr.J.Karthikeyan (Head)		Convener
2. Dr.M.Anbu Kulandainathan (Principal Scientist, CECRI)		– External Member
3. Dr.A.Sheik Mideen (Professor)		Member
4. Dr.V.Kavitha (Associate Professor)		Member
5. Dr.T.Krithiga (Associate Professor)		Member
6. Dr.S.Supriya (Associate Professor)		Member
7. Dr.S.Sunitha (Assistant Professor)		Member

Prof. Dr. J. Karthikeyan Convener BoS, during his introductory comments explained the existing syllabus of I year B.E/B.Tech and also **explained in detail about the need for framing an outcome based syllabus according to the current global scenario.** As part of the action taken on the resolutions of the 4th BOS meeting, the members were informed about the inclusion of outcome based syllabus for the 2018 – 2019 batch.

After a few brief remarks, the agenda items listed below were taken up for discussion and the following resolutions were passed.

1. SCY 1101– Engineering Chemistry (Common to all branches of I sem B.E./B.Tech)
2. SCY 1102 – Chemistry of Electronic Materials (Common to II sem BE /B.Tech CSE, IT, ECE, EEE, E&I)
3. SCY 1103 – Chemistry of Industrial Materials (Common to II sem BE /B.Tech Mech, Mechatronics, Auto, Aero, Civil)
4. SCY 1105 – Physical Chemistry (For II sem B.Tech., Chemical)

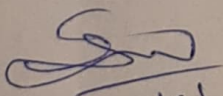
The minutes of the previous BoS meeting (4 theory papers) were reviewed and approved by all the members.

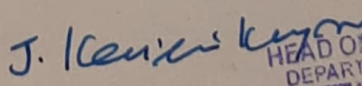
ITEM No: BOS/May 2018 -1:

For Board of council
approval

ITEM No: BOS/May 2018-2:

For Board of council
approval


(M. Anbu Kulandainathan)


J. Karthikeyan
HEAD OF THE DEPARTMENT
DEPARTMENT OF CHEMISTRY
SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)
Jeppiaar Nagar, Rajiv Gandhi Salai,
Chennai – 600 119



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY (DEEMED TO BE UNIVERSITY)

(Established under Section 3 of the UGC Act, 1956)

Accredited with 'A' Grade by NAAC

Rajiv Gandhi Road, Jeppiaar Nagar Chennai – 600 119, Tamil Nadu, India.



BOARD OF STUDIES – DEPARTMENT OF CHEMISTRY

DATE: 22-May-2018

TIME: 10:00 a.m. to 4:00 p.m.

VENUE: Audio Visual Hall (Central Library II floor)

Minutes of the Meeting

The Board of Studies meeting for the B.Sc. & M.Sc., Chemistry syllabus (Academic year 2018-2019) was held on the 22nd of May 2018. The following members were present during the meeting.

- Dr. Pushpendu Kumar Das – Department of Inorganic and Physical Chemistry, IISc, Bangalore
Dr. J. Karthikeyan – Associate Professor and Head, Department of Chemistry
Dr. A. Sheik Mideen – Professor, Department of Chemistry
Dr. V. Kavitha – Associate Professor, Department of Chemistry
Dr. T. Krithiga – Associate Professor, Department of Chemistry
Dr. S. Supriya – Associate Professor, Department of Chemistry
Dr. S. Sunitha – Assistant Professor, Department of Chemistry

Prof. Dr. J. Karthikeyan, Convener BoS, during his introductory comments explained the existing syllabus of B.Sc and M.Sc. also **explained in detail about the need for framing an outcome based syllabus according to the current global scenario**. As part of the action taken on the resolutions of the BoS meeting, the members were informed about the inclusion of outcome based syllabus for the 2018 – 2019 batch. After a few brief remarks, the agenda items were taken up for discussion and reviewed by all the members.

Resolution:

1. Based on the suggestions and valuable inputs given by the external members, the outcome based syllabus for B.Sc. & M.Sc Chemistry program was prepared.
2. Hence the outcome based syllabus for B.Sc. & M.Sc., Chemistry program will be incorporated from the academic year 2018-2019 onwards.

ITEM No: BOS/May 2018 -1:

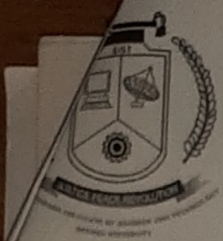
For Board of council
approval

ITEM No: BOS/May 2018-2:

For Board of council
approval

Phras
22/5/2018

J. Karthikeyan 22/05/2018
HEAD OF THE DEPARTMENT
DEPARTMENT OF CHEMISTRY
SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)
Jeppiaar Nagar, Rajiv Gandhi Salai,
Chennai – 600 119



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)

Accredited with "A" Grade by NAAC

Jeppiaar Nagar, Rajiv Gandhi Salai, Chennai - 600 119.

Phone: 044 - 2450 3150 / 51 / 52 / 54 / 55 Fax: 044 - 2450 2344
www.sathyabama.ac.in



DEPARTMENT OF CHEMISTRY

BoS meeting held on 22nd May, 2018

Position	Name	Designation	Signature
Convener	Dr. J. Karthikeyan	Associate professor and Head, Department of Chemistry.	J. Karthikeyan
External Member	Dr. Pushpendu Kumar Das	Professor, Department of Inorganic & Physical Chemistry, IISc., Bangalore.	P. Das
Internal Member	Dr. A. Sheik Mideen	Professor, Department of Chemistry	A. Sheik Mideen
Internal Member	Dr. V. Kavitha	Associate professor, Department of Chemistry.	V. Kavitha
Internal Member	Dr. T. Krithiga	Associate professor, Department of Chemistry.	T. Krithiga
Internal Member	Dr. S. Supriya	Associate professor Department of Chemistry.	S. Supriya
Internal Member	Dr. S. Sunitha	Assistant professor, Department of Chemistry.	S. Sunitha

J. Karthikeyan 22/5/18
HEAD OF THE DEPARTMENT
DEPARTMENT OF CHEMISTRY
SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)
Jeppiaar Nagar, Rajiv Gandhi Salai,
Chennai - 600 119

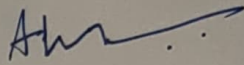
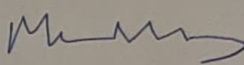
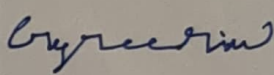
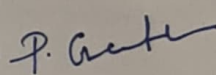
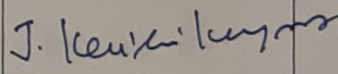
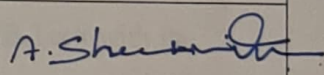
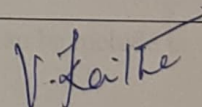
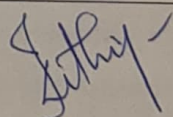
SATHYABAMA UNIVERSITY

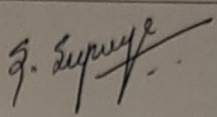
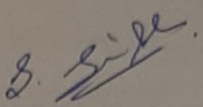
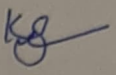
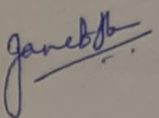
Minutes of Board of Studies – Jan 2018 – May 2018

Department of Chemistry

Minutes of the BOS Meeting-2017 - 2018 (UG –B.E/B.Tech/B.Sc/M.Sc) meeting held on 5th Jan, 2018 at 10.30 A.M. Department of Chemistry, Sathyabama Institute of Science and Technology, Chennai.

Members Present:

S.No.	Name of the Staff	Members	Signature
1.	Dr. A. Nityananda Shetty (Professor) Department of Chemistry, NITK Suratkal	BOS member	
2.	Dr. Puspendhu Kumar Das (Professor) Department of Inorganic and Physical Chemistry, Indian Institute of Science	BOS member	
3.	Dr. Bhaskar Raju (Professor) National Metallurgical Lab, Madras Centre, CSIR Complex	BOS member	
4.	Dr. Geetha Swaminathan Former Vice Principal, Stella Maris College	BOS member	
5.	Dr.J.Karthikeyan, (Associate Professor) Head, Department of Chemistry	Member	
6.	Dr.A.SheikMideen (Professor) Department of Chemistry	Member	
7.	Dr. V. Kavitha (Associate Professor) Department of Chemistry	Member	
8.	Dr. T. Krithiga (Associate Professor) Department of Chemistry	Member	

9.	Dr. S. Supriya (Associate Professor) Department of Chemistry	Member	
10.	Dr. S. Sunitha (Assistant Professor) Department of Chemistry	Member	
11.	Dr. K. Chennakesavulu (Associate Professor) Department of Chemistry	Member	
12.	Ms. X. Janet Sabina (Assistant Professor) Department of Chemistry	Member	

Absent - NIL

Dr. J.Karthikeyan, Associate Professor, has explained the existing syllabus of Ist year B.E/B.Tech (2015 Regulation) both first and second semester, M.Sc., (2015 Regulation) and B.Sc., (2017 Regulation) also explained the pattern of the internal and university examination and scheme for calculation of internal marks.

Points of Revision for UG/PG Courses

After the brief introduction regarding the existing syllabus, the agenda items listed below were considered for discussion and the following resolutions were passed.

SCY1102

- Dr. A. Nityananda Shetty, Dr. Puspendu Kumar Das, Dr. G. Bhaskar Raju and Dr. Geetha Swaminathan recommended that SCY1102-Chemistry of Electronic Materials (Common to CSE, ECE, EEE, E&I) syllabus for Semester II of B.E/B.Tech with the following corrections can be processed.
- Unit-I: Members suggested that Organic LED and Organic solar cells can be include in Unit-I
- Unit-IV: Members felt that Transformer oil – Factors affecting the properties of transformer oil – Transformer oil tests – Purification of Transformer oil and Askarels under liquid insulating materials can be included in unit-IV.

SCY1103

- Dr. A. Nityananda Shetty, Dr. Puspendu Kumar Das, Dr. G. Bhaskar Raju and Dr. Geetha Swaminathan recommended that the syllabus of SCY1103-Chemistry of Industrial Materials (Common to Mech, Aero, Auto, Mech&Pro and Civil) for Semester II of B.E/B.Tech can be processed with the following modification.
- Unit-III: Members suggested that the Inert propellant can be included in the classification of chemical propellant of unit-III
- Unit-IV: Members felt that application of lubricants in industrial sector can be included in unit-IV.

B.Sc Syllabus

- Dr. A. Nityananda Shetty, Dr. Puspendu Kumar Das, Dr. G. Bhaskar Raju and Dr. Geetha Swaminathan recommended that B.Sc syllabus (Regulation 2017) which was approved in the BOS meeting for the period June 2017 – Dec 2017 for the second semester can be processed without any modification.

M.Sc Syllabus

- Dr. A. Nityananda Shetty, Dr. Puspendu Kumar Das, Dr. G. Bhaskar Raju and Dr. Geetha Swaminathan recommended that the syllabus of SCY5104-Quantum Chemistry and Group Theory has to be revised and the corrections and suggestions have to be incorporated in all the five units. The course code for the subject has been revised as SCY5109-Fundamentals of Quantum Chemistry and Group Theory. The members felt that the title of the units can also be revised.
- Unit-I- Basics of Quantum Mechanics
- Unit-II-Applications of Quantum Mechanics
- Unit-III-Approximation Methods
- Unit-IV-Group Theory
- Unit-V-Application of Group Theory

- Dr. Puspendu Kumar Das, Dr. R. Damodharan and Dr. G. Bhaskar Raju recommended that the remaining M.Sc syllabus for the M.Sc Chemistry 2016 batch and 2017 batch can be handled without any correction.

Conclusion:

As per recommendation by the panel members and stake holders, the syllabus for all the courses continued with the corrections and suggestions incorporated and processed for the academic year 2017 - 2018. The BOS members approved the evaluation scheme and will be implemented for the period Jan 2018 – May 2018.

ITEM No: BOS/Jan 2018:

For Board of council
approval

ITEM No: BOS/Jan 2018:

For Board of council
approval

J. K. Sathiyabama
HEAD OF THE DEPARTMENT
DEPARTMENT OF CHEMISTRY
SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)
Jeppiaar Nagar, Rajiv Gandhi Salai
Chennai - 600 119

SATHYABAMA UNIVERSITY

CHENNAI - 600119

BOARD OF STUDIES - DEPARTMENT OF CHEMISTRY

DATE: 09-June-2017

TIME: 02:00 p.m. to 4:00 p.m.

VENUE: Audio Visual Hall (Central Library II floor)

Minutes of the Meeting

The Board of Studies meeting for the B.Sc. Chemistry syllabus (Academic year 2017-2018) was held on the 9th of June 2017. The following members were present during the meeting.

Dr. A. Nityananda Shetty - Department of Chemistry, NITK Suratkal

Dr. Pushpendu Kumar Das - Department of Inorganic and Physical Chemistry, Indian Institute of Science, Bangalore

Dr. G. Bhaskar Raju - National Metallurgical Lab, Madras Centre, CSIR Complex

Dr. Geetha Swaminathan - Former Vice Principal, Stella Maris College

Dr. J. Karthikeyan - Associate Professor and Head, Department of Chemistry

Dr. A. Sheik Mideen - Professor, Department of Chemistry

Dr. V. Kavitha - Associate Professor, Department of Chemistry

Dr. T. Krithiga - Associate Professor, Department of Chemistry

Dr. S. Supriya - Associate Professor, Department of Chemistry

Dr. S. Sunitha - Assistant Professor, Department of Chemistry

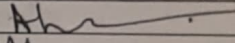
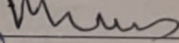
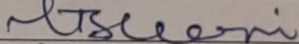
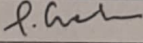
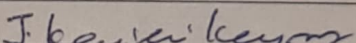
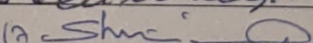
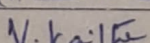
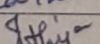
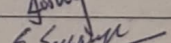
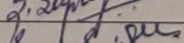
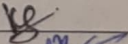
Dr. K. Chennakesavulu Reddy - Associate Professor, Department of Chemistry

Ms. X. Janet Sabina - Assistant Professor, Department of Chemistry

Suggestions

1. Based on the suggestions and valuable inputs given by the external members, the syllabus for B.Sc. Chemistry program was prepared.
2. During the Board of Studies meeting, the syllabus was discussed fully and approved by all the members unanimously.
3. Hence the syllabus for B.Sc. Chemistry program will be incorporated from the academic year 2017-2018 onwards.

Members:

Dr. A. Nityananda Shetty	
Dr. Pushpendu Kumar Das	
Dr. G. Bhaskar Raju	
Dr. Geetha Swaminathan	
Dr. J. Karthikeyan	
Dr. A. Sheik Mideen	
Dr. V. Kavitha	
Dr. T. Krithiga	
Dr. S. Supriya	
Dr. S. Sunitha	
Dr. K. Chennakesavulu Reddy	
Ms. X. Janet Sabina	

J. Karthikeyan

HEAD OF THE DEPARTMENT
DEPARTMENT OF CHEMISTRY
SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)
Jeppiyazh Nagar, Velupillai Salai
Chennai - 600 099