

Minutes of the Board of Studies meeting of the department of chemistry held on 6/4/2016 at Conference Hall, Admin. Block.

The following members were present.

1. Dr.S.Nagarajan
2. Dr.R.Karvembu
3. Dr.T.Mohan Das
4. Dr.S.G.Ramkumar
5. Dr.Vittal Babu Gudimetla
6. Dr.M.Shiva Prasad
7. Dr.Barani Balan
8. Dr.Meganathan Kannan
9. Dr.R.Arun

Dr.S. Nagarajan welcomed the members present and stated the agenda for the discussion and the following points were discussed. Mr.B.Selvakumar, Anthem-Biosciences participated through skype. The other two members, Prof.A.K.Mishra and Prof.G.Sekhar were not present due to unavoidable reasons. However, the minutes of this meeting will be communicated for their opinions.

1. Minor corrections were made in the existing I.M.Sc (Chemistry) and M.Sc (Chemistry) syllabus. The revised syllabus will be placed for approval in the academic council and the approved syllabus will be implemented concurrently.
2. Considering the difficulty in grading the students across programmes, it is suggested either to have a uniform passing minimum across all programmes offered by CUTN or to have relative grading, wherein the grades will be assigned based on the performance of the students in that particular course.
3. The students joined in I.M.Sc (Chemistry) and M.Sc (Chemistry) shall have atleast one industrial/academic visit as part of their curriculum.
4. The department proposes the following add-on courses which will be conducted as a standalone certificate course. Only the science students admitted in CUTN are eligible to enroll for the add-on course. A separate fees may be collected for the certificate course.
  - a) Industrial Chemistry (12 credits)
  - b) Water and Wastewater analysis (12 credits)

R. S. Selvakumar

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Tamil Nadu / तमिलनाडु

M. Kannan  
6/4/16

R. Arun  
6/4/16

S. G. Ramkumar  
6/4/16

M. Shiva Prasad  
6/4/16

T. Mohan Das

S. Vittal Babu Gudimetla  
6/4/2016

M. Meganathan Kannan  
06/4/2016

R. Arun  
6/4/16

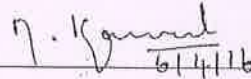
06/04/2016

5. The department proposes to have a job oriented/skill based programme - Post-Graduate Diploma in Chemical Laboratory Technician (32 credits). The course is open to all the B.Sc (Chemistry) Graduates. The details of the course content will be placed in the subsequent academic-council meeting. The total number of students intake shall be six.
6. The department proposes to have an M.Phil (Chemistry) programme. The total number of students intake shall be 12.

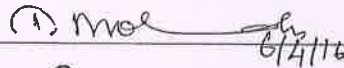
Dr.S.Nagarajan


  
6/4/16

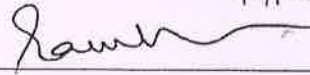
Dr.R.Karvembu


  
6/4/16

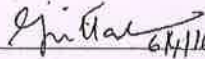
Dr.T.Mohan Das


  
6/4/16

Dr.S.G.Ramkumar




Dr.Vittal Babu Gudimetla


  
6/4/16

Dr.M.Shiva Prasad



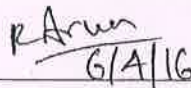
Dr.Barani Balan

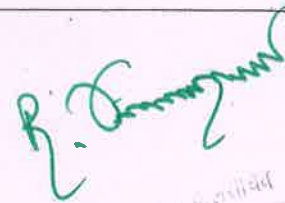

  
6/4/16

Dr.Meganathan Kannan


  
6/4/16

Dr.R.Arun


  
6/4/16



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# तमिलनाडु केन्द्रीय विश्वविद्यालय

(संसद द्वारा पारित अधिनियम 2009 के अंतर्गत स्थापित)

**CENTRAL UNIVERSITY OF TAMIL NADU**

(Established by an Act of Parliament, 2009)

नीलक्कुडी परिसर/Neelakudi Campus, तिरुवारूर/Thiruvarur - 610 005.  
04366-277261.

CUTN-13(12)/2018-AC /489

2<sup>nd</sup> July, 2018

To  
MOOCs coordinator,  
CUTN.

**Sub:** MOOC.

Madam,

I am directed to transmit the recommendation of Board of Studies of Department of Chemistry held on 14.5.2018.

*"Students are encouraged to take electives and MOOC courses as and when available".*

Yours truthfully,

Copy to:-  
Head, Department of Chemistry, CUTN.

**Joint Registrar (Academics)**

*[Signature]*  
Joint Registrar (Academics)

*File*  
*[Signature]*  
02/07/2018

*[Signature]*

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Neelakudi Campus / नीलक्कुडी परिसर  
Thiruvarur - 610 005 / तिरुवारूर  
Tamil Nadu / तमिलनाडु

Minutes of the Board of Studies meeting of the Department of Chemistry held on 14/05/2018  
at HOD – Chamber, Department of Chemistry

The following members were present.

- |                             |                         |
|-----------------------------|-------------------------|
| 1. Prof.S.Nagarajan         | 6. Dr.M.Shiva Prasad    |
| 2. Prof.R.Karvembu          | 7. Dr.Barani Bafan      |
| 3. Prof.T.Mohan Das         | 8. Dr.R.Arun            |
| 4. Dr.S.G.Ramkumar          | 9. Dr.Meganathan Kannan |
| 5. Dr.Vittal Babu Gudimetla |                         |

Prof.S. Nagarajan welcomed the members and presented the agenda for the discussion. Dr.B.Selvakumar, Anthem-Biosciences participated through skype. The other two members, Prof.A.K.Mishra, IITM and Prof.G.Sekhar, IITM were not present due to unavoidable reasons. However, the deliberations are communicated and the minutes of this meeting will be communicated.

1. As directed by UGC-MHRD to adopt CBCS, the i.MSc syllabus has been realigned based on the model curriculum given by UGC. The Credit distribution, course titles and syllabus are approved.
2. The syllabus provided by UGC for B.Sc (Chemistry) is adopted for the first three years of integrated M.Sc Programme with appropriate reorganization of the content as per the guidelines.
3. Since i.MSc syllabus is reorganized, M.Sc syllabus is also reorganized for the benefit of students appearing for National level exams.
4. The revised syllabus will be applicable for all the students of i.MSc (Chemistry) and M.Sc (Chemistry) except to the students entering final year of i.MSc and M.Sc programmes during 2018-19.
5. Students are encouraged to take electives and MOOC courses as and when available.
6. Students joined for i.MSc Programme, but opting for exit with B.Sc Chemistry degree should intimate the department before the commencement of fifth semester in written with a consent from their parent. Those students should undergo a minor project in the sixth semester (6 credits) in addition to the prescribed courses.
7. A two credit course will be offered for the i.MSc (Chemistry) students from second year onwards to match the credit requirement as per UGC -CBCS guidelines.
8. Students admitted into i.M.Sc (Chemistry) programme during 2018-19 with Biology or related subject in +2 will opt Life-Sciences and physics in addition to Chemistry for the first two years.

File  
14/05/2018

*R. Jaganmohan*

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## 9. Credit distribution for I.MSc (Chemistry) Programme

Semester	Title of the Course	Nature of the course	Credit
1	General Chemistry	T	3
1	General Chemistry Laboratory	P	2
1	Second Major	T	3
1	Second Major Laboratory	P	2
1	Third Major	T	3
1	Third Major Laboratory	P	2
1	*****Ability Enhancement Course *****	AECC	2
1	English - 1	AECC	3
2	Physical Chemistry I	T	3
2	Physical Chemistry Laboratory I	P	2
2	Second Major	T	3
2	Second Major Laboratory	P	2
2	Third Major	T	3
2	Third Major Laboratory	P	2
2	*****Ability Enhancement Course *****	AECC	2
2	English -- 2	AECC	3
3	Inorganic Chemistry I	T	3
3	Inorganic Chemistry Laboratory I	P	2
3	Second Major	T	3
3	Second Major Laboratory	P	2
3	Third Major	T	3
3	Third Major Laboratory	P	2
3	*****Ability Enhancement Course *****	AECC	2
3	Language - 1	AECC	3
4	Organic Chemistry I	T	3
4	Organic Chemistry Laboratory I	P	2
4	Second Major	T	3
4	Second Major Laboratory	P	2
4	Third Major	T	3
4	Third Major Laboratory	P	2

*R. D. Srinivasan*

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(85)

Semester	Title of the Course	Nature of the course	Credit
1	*****Ability Enhancement Course*****	AECC	2
1	Language - 2	AECC	3
2	Analytical Methods in Chemistry	DSE-T	4
2	Acid-bases, redox reactions, s- and p- block elements	DSE-T	4
2	Organic Reaction Mechanisms & Hetrocyclic compounds	DSE-T	4
2	Physical States of Matter & Photochemistry	DSE-T	4
2	Analytical & Inorganic Chemistry Laboratory I	DSE-P	2
2	Organic Chemistry Laboratory II	DSE-P	2
2	Physical Chemistry Laboratory II	DSE-P	2
3	*****Skill Enhancement Course*****	SEC	2
3	Nuclear, Basic Organometallic and Bioinorganic Chemistry	DSE-T	4
3	Reaction Mechanisms and Natural Products Chemistry	DSE-T	4
3	Quantum Chemistry and Molecular Spectroscopy	DSE-T	4
3	Analytical & Inorganic Chemistry Laboratory II	DSE-P	2
3	Organic Chemistry Laboratory III	DSE-P	2
3	Physical Chemistry Laboratory III	DSE-P	2
3	*****Skill Enhancement Course*****	SEC	2
3	*### Project (for students opting exit)**	P	6
4	Solid state, main group and coordination chemistry	T	4
4	Physical Organic Chemistry & Aromatic Compounds	T	4
4	Chemical Kinetics and Group Theory	T	4
4	*****Subject Selective Elective*****	E	4
4	Advanced Organic Chemistry Laboratory	P	4
4	Advanced Inorganic Chemistry-II	T	4
4	Organic Photochemistry and Rearrangements	T	4
4	Advanced Quantum Chemistry & Molecular Spectroscopy	T	4
4	Physical Methods in Chemistry I	T	4
4	Advanced Physical Chemistry Laboratory	P	4
4	Physical Methods in Chemistry II	T	4
4	Molecular Rearrangements and Organic Photochemistry	T	4
4	Thermodynamics (Classical/statistical) & Electrochemistry	T	4

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Semester	Title of the Course	Nature of the course	Credit
9	*****Subject Selective Elective*****	E	4
9	Advanced Inorganic Chemistry Laboratory	P	4
10	Research Project	P	12

Total : 124 + 6 = 130 credits for B.Sc (Exit) option candidates

Total: 196 credits for i.MSc Candidates

The i.MSc students with maths background will be given Maths and Physics as other majors, whereas i.MSc students with biology background will be given Physics and Life-Science as other major subjects.

#### Course Distribution for M.Sc (Chemistry)

Semester	Title of the Course	Nature of the course	Credit
1	Solid State, Main Group and Coordination Chemistry	T	4
1	Physical Organic Chemistry & Aromatic Compounds	T	4
1	Chemical Kinetics and Group Theory	T	4
1	*****Subject Selective Elective*****	E	4
1	Advanced Organic Chemistry Practical	P	4
2	Advanced Organometallic and Bioinorganic Chemistry	T	4
2	Organic Photochemistry and Rearrangements	T	4
2	Advanced Quantum Mechanics & Molecular Spectroscopy	T	4
2	Physical Methods in Chemistry I	T	4
2	Physical Chemistry: Advanced Laboratory Techniques	P	4
3	Physical methods in Chemistry II	T	4
3	Molecular Rearrangements and Organic Photochemistry	T	4
3	Thermodynamics (Classical/statistical) & Electrochemistry	T	4
3	*****Subject Selective Elective*****	E	4
3	Advanced Inorganic Chemistry Practical	P	4
4	Research Project	P	12
	TOTAL		72

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10. The present faculty sanctioned strength for running i.MSc Programme is 10, which is not sufficient considering the work load. In this regard, the calculation of workload requires 14 faculty members. Considering the availability of only ten faculty members, i.MSc programme may be phased out and M.Sc Programme may be strengthened.

Further, on comparison of the academic performance of i.MSc students with M.Sc Chemistry students after completion of respective programmes, it was observed that i.MSc students are gradually reducing their performance probably due to complacency imbibed.

Based on the above, BoS resolved either to increase the faculty strength to FOURTEEN or phase out i.MSc (Chemistry) programme. Instead of i.MSc programme in Chemistry the number of students intake in M.Sc (Chemistry) programme may be increased preferably with specialization.

Prof.S.Nagarajan *S.Nagarajan*  
14/5/2018

Prof.R.Karvembu *R.Karvembu*  
14/5/18

Prof.T.Mohan Das *T.Mohan Das*

Dr.S.G.Ramkumar *S.G.Ramkumar*  
14/5/2018

Dr.Vittal Babu Gudimetla *Vittal Babu Gudimetla*  
14/5/18

Dr.M.Shiva Prasad *M.Shiva Prasad*

Dr.Barani Balan *Barani Balan*  
14/5/18

Dr.Meganathan Kannan

Dr.R.Arun *R.Arun*  
14.5.18

*R. Thangaraj*

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Minutes of the Board of Studies meeting of the Department of Chemistry held on 26/11/2019 (Tuesday)  
at Seminar room (first floor), Department of Chemistry.

The following BoS members and special invitees were present for the meeting.

BoS members:

1. Prof. T. Mohan Das (Chairperson)
2. Prof. S. Velmathi
3. Prof. Bala Manimaran
4. Prof. S. Abraham John
5. Dr. E. M. Shankar
6. Dr. R. Arun
7. Dr. V. Rajendiran
8. Dr. V. Prabha

Special invitees:

1. Dr. Vittal Babu Gudimetla
2. Dr. M. Shiva Prasad
3. Ms. N. Keerthika (Alumni and Ph.D. scholar of the Department)

Prof. T. Mohan Das welcomed the members and presented the agenda for the discussion.

Prof. S. Nagarajan, Dr. S. G. Ramkumar, Dr. John Prakash and Dr. K. Sarkunam (external member) could not attend the BoS meeting due to unavoidable reasons. However, the minutes of the meeting will be communicated to them for their feedback.

1. Based on the model curriculum given by UGC, the syllabi was realigned and the credit distribution and course titles were placed in the previous BoS meeting held on 14/05/2018 and it was approved by the academic council. Some minor corrections were made to the existing courses and it is listed in the Annexure 1. The revised syllabi will be placed for approval in the academic council and upon approval, it will be implemented immediately. *from the academic year*
2. The Department of Chemistry presently offering the following courses i.e. 5 years IMSc, 2 years MSc, 1 year PGDCLT, MPhil and Ph.D. programs with the ten sanctioned faculty strength. Based on the number of students and number of programs, an approximate work load calculation requires 14 faculty members. Based on the above facts, the BoS resolved either to increase the faculty strength to 14 members or phase out IMSc (chemistry) programme. In the absence of IMSc, the student strength may be adjusted accordingly by increasing the number of students in the MSc programme along with different specialization. *number of batches increased*

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3. Depending upon the willingness of the students and availability of suitable courses in the Massive Open Online Courses (MOOCs), students can identify their preferences and enroll for the online courses. If the certification is available for the registered courses, after completing the course the respective credits will be transferred to the students. Otherwise, the department may develop an evaluation strategy in agreement with the university norms to provide the grades.

Prof. S. Velmathi

*S. Velmathi*

Prof. Bala Manimaran

*Bala Manimaran*

Prof. S. Abraham John

*S. Abraham John*

Dr. E. M. Shankar

*E. M. Shankar*

Dr. R. Arun

*R. Arun*

Dr. V. Rajendiran

*V. Rajendiran*

Dr. V. Prabha

*V. Prabha*

Dr. Vittal Babu Gudimetla

*Vittal Babu Gudimetla*

Dr. M. Shiva Prasad

*M. Shiva Prasad*

Ms. N. Keerthika

*N. Keerthika*

*R. S. Srinivasan*

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*R. S. Srinivasan*  
26/11/2019

Annexure - I

In addition to the updated text book references and typographical errors the following modifications were made to the existing syllabi.

Programme and title	Syllabi after modification
IMSc Semester V: "Organic Reaction Mechanisms and Heterocyclic Compounds"	<b>Heterocyclic compounds:</b> Molecular orbital structure and aromatic characteristics of Five-membered rings, structure and source of pyrrole, furan, thiophene and pyridine; Synthetic protocols and reactivity with particular focus on electrophilic substitution, of pyrrole, furan, thiophene; reactivity and orientation; saturated five membered heterocycles; six membered rings; structure and source of pyridine compounds; Electrophilic substitution of pyridine and Nucleophilic substitution of pyridine; comparison of basicity of pyridine, piperidine and pyrrole reduction of pyridine.
IMSc Semester VII "Physical Chemistry & Aromatic Compounds"	<b>Advanced Stereochemistry:</b> Configuration - conformation of cycloalkanes, conformation and reactivity - stereochemistry of allenes, spiranes, biphenyls, molecules with chiral planes, Topicity stereoselective and stereospecific reactions - enantioselective reactions - determination of enantiomeric and diastereomeric excess; double stereo differentiation, asymmetric synthesis, chiral auxiliaries, chiral catalysts and reagents. Resolution - optical and kinetic.
IMSc Semester VII "Advanced Organic Chemistry Laboratory"	3. Estimation of organic compounds: a) Estimation of phenol and aniline - volumetric method. b) Estimation of glucose by Betrand's method. c) Estimation of methyl ketone - iodimetric method d) Differentiation between a reducing and a nonreducing sugar. e) Determination of iodine and saponification value of an oil sample
IMSc Semester IX "Reagents & Synthetic Strategies in Organic Chemistry"	<b>Planning Organic Synthesis:</b> An introduction to retrosynthesis - Synthons - synthetic equivalent - target molecule, functional group interconversion. Disconnection approach- one group disconnection- disconnection of alcohols, olefins and ketones. Logical and illogical disconnections. Two group disconnection-1,2, -1,3, 1,4, 1,5 and -1,6 dioxygenated skeletons and dicarbonyls; Umpolung, antithesis, chiron. C-C bond forming reactions, <u>Wieland Mischer ketones</u> (alkylation as well as enamine alkylation). Retro Diels - Alder reactions- Pericyclic

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Handwritten signatures and dates: 26/11/2019, and other illegible signatures.

	<p>reactions- Reterosynthesis of heterocycles containing two nitrogens. Designing synthesis: Disconnection approach in <u>Epothilone, Juvabione-Campher, reserpine and longifolene,</u></p> <p><b>Synthetic Reagents:</b> Use of the following reagents in organic synthesis and functional group transformations:  Oxidising reagents: <del>Sodium borohydride, tri-n-butyl tin hydride, lithium dimethyl cuprate, lithium diisopropyl amide, trimethyl silyl iodide, ozone, CrO<sub>3</sub> DCC, DDQ, 9-BBN, lead tetra acetate, phenyl iodoso acetate, dimethyl sulphoxide, SeO<sub>2</sub>, PCC, <u>IBX</u>, Yeast. Phase transfer catalysis – benzyltriethylammonium halides- crown ethers. Reducing reagents: Use of B<sub>2</sub>H<sub>6</sub>, 9-BBN, <u>IPc-BH<sub>2</sub>, NaBH<sub>4</sub>, NaCNBH<sub>3</sub>, LiAlH<sub>4</sub> and Bu<sub>3</sub>SnH;</u> Use of Sn/HCl, Zn/HCl, Hydrazine, Li-NH<sub>3</sub>, Na/alcohol, Pd/H<sub>2</sub> and Raney Ni.  <b>Organometallic reagents:</b> <u>Lithium dialkylcuprate, alkylmagnesiumhalide, alkyllithium, trimethylsilyliodide, Organoruthenium reagent (Metathesis reactions), Organozinc reagent.</u></del></p>
<p>Semester- V Analytical Methods in chemistry</p>	<p><b>Optical methods of analysis:</b> Origin of electromagnetic spectra</p> <p><b>Thermal methods of analysis:</b> Types of Thermal gravimetric analysis.</p>
<p>Semester- IX Thermodynamics (Classical &amp; Statistical) &amp; Electrochemistry</p> <p><i>R. Srinivasan</i></p> <p>Registrar / कुलसचिव Central University of Tamil Nadu तमिलनाडु केन्द्रीय विश्वविद्यालय Neelakudi Campus / नीलकुडी परिसर Thiruvavur - 610 005 / तिरुवावूर Tamil Nadu / तमिलनाडु</p>	<p><b>Thermodynamics of Irreversible Processes:</b> Postulates of Non-Equilibrium Thermodynamics (or) irreversible processes with simple examples. Phenomenological relations (flux and driving force). Onsager reciprocal relations - principle of microscopic reversibility. Electrokinetic phenomena using entropy production. Thermoelectric phenomena.</p> <p>References:</p> <ol style="list-style-type: none"> <li>1. Thomas Engel, Philip Reid, Thermodynamics, Statistical Thermodynamics and Kinetics, Pearson, 2011.</li> <li>2. Francis W. Sears, Gerhard L. Salinger, Thermodynamics, Kinetic theory, and Statistical thermodynamics, 3<sup>rd</sup> Ed. Narosa Publishing House.</li> <li>3. H.K. Moudgil, Textbook of Physical chemistry, 2<sup>nd</sup> PHI Learning Private limited, 2015.</li> </ol>
<p>Organic Chemistry lab -III; Semester - VI</p>	<p>Minor modification was carried out</p>
<p>Advanced Organic Chemistry Laboratory - Semester -VII</p>	<p>Qualitative Analysis: Separation and analysis of organic mixture containing two ... components and preparation of suitable derivatives (at least four compounds)-</p>

*Sheela B*      *C. Srinivasan*      *B. Srinivasan*      *D. Srinivasan*      *S. Srinivasan*

0 1/20      26/11/2019

	Differentiation between a reducing and a nonreducing sugar.
Organic practical courses	Compared all practical courses and all repeated contents were removed
Semester VIII, Organic Photochemistry & rearrangements:	Unit 3 and 4- Minor changes were carried out to meet the CSIR syllabus standard
Semester VI Nuclear, Basic Organometallic & Bioinorganic Chemistry	<b>Nuclear Chemistry II: Radioactivity – discovery, detection and measurements (Wilson cloud chamber). Radioactive emanations. Disintegration theory – modes of decay – Group displacement law – Rate of disintegration – Half life and average life – Radioactive series. Nuclear transformations – use of projectiles – nuclear reactions – fission and fusion. Nuclear reactors, radio-analytical techniques and activation analysis-<u>neutron activation analysis. Nuclear medicine – Single photon emission computed tomography (SPECT) and positron emission tomography (PET) techniques.</u> Applications of nuclear science in agriculture and medicine- carbon dating - rock dating - radioactive waste disposal.</b> <b>The highlighted topics have been included</b>
Semester VII Solid State, Main Group & Coordination Chemistry	Hydrides and hydrogen-storage materials and Inorganic pigments have been included in the Synthesis and modification of inorganic solids unit.
Semester IX Physical Methods in Chemistry II	<del>Magnetic properties—Determination of Magnetic moments and their applications to the elucidation of structures of inorganic compounds—temperature independent paramagnetism. Magnetic properties of lanthanides and actinides. Spin crossover in coordination compounds—Single molecule magnets.</del>  The above content has been removed from EPR spectroscopy unit, due to repetition, the same content is present in Semester VIII, Advanced Organometallic & Bioinorganic Chemistry course under the magnetic properties unit.
Semester IX Advanced Inorganic Chemistry Laboratory	Instead of conducting all the experiments in this practical course, based on the availability of resources in the department we are decided to conduct any 10 experiments.

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*Dr. S. S. S. S.*  
*Dr. S. S. S. S.*

*Dr. S. S. S. S.*

*Dr. S. S. S. S.*  
26/11/2019  
*S. K.*

*M. S. S. S.*  
*O. P. S. S.*

Minutes of the Board of Studies online meeting of the Department of Chemistry held on 21<sup>st</sup> September 2021.

The following BOS members and special invitees were present for the meeting:

BOS members:

1. Prof. T. Mohan Das, Chairperson
2. Prof. Bala Manimaran
3. Prof. S. Abraham John
4. Prof. S. Velmathi
5. Dr. K. Sarkunam
6. Prof. E. M. Shankar
7. Dr. R. Arun
8. Dr. V. Rajendiran
9. Dr. V. Prabha
10. Dr. John Prakash

Special invitees:

1. Dr. S. G. Ramkumar
2. Dr. Vittal Babu Gudimetla
3. Dr. M. Shiva Prasad
4. Ms. N. Keerthika (Alumni and PhD scholar of the Department)

*R. Arun*  
 Registrar / कुलसचिव  
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Due to preoccupation, Prof. S. Nagarajan couldn't attend the meeting.

Prof. T. Mohan Das welcomed the member and presented the agenda for the discussion.

- Introducing Value Added Courses (VAC): Department proposes to offer value added courses namely (i) Instrumental Techniques for Chemical Analysis-I; (ii) Instrumental Techniques for Chemical Analysis-II. The courses will be of 30 hours with 50% weightage to theory and laboratory. Students will be exposed to basic instrumental techniques and also hands on experience. Prof. Bala Manimaran suggested to include a unit on HPLC, GC because several industries expecting expertise on these techniques.

*Arun* 22.09.21  
*Bala Manimaran* 21/09/21  
*S. Velmathi* 22/09/21  
*V. Rajendiran* 21/09/21  
*Keerthika* 21/09/21  
*John Prakash* 21/09/21

Prof. S. Velmathi suggested to look into the aspects of grading and eligibility criteria etc. Dr. K. Sarkunam informed the committee that his company M/s. Syngene International Limited is willing to donate a few old instruments in good working conditions to CUTN for the students to have hands-on experience and the chairperson of the committee thank Dr. K. Sarkunam for his generosity. Prof. Abraham John suggested to change the title of the VAC as it is not clearly reflecting the theme. He also suggested to reduce the content of the syllabus because the credits is only two.

- Feedback collected during the PTA (2018 - 2020) and alumni meeting was analysed and presented for the approval. Committee members are happy with the action taken report for the feedback provided by the students about the curriculum.
- As per recent advancement in education, the department has prepared the syllabus with refer to outcome based education (OBE) and mapped various parameters, such as Course Outcomes (COs), Programme Specific Outcomes (PSOs), Programme Outcomes (POs). All the BoS members were approved the OBE syllabus.

Finally, the head of the department thank all members for taking part in the BoS meeting and providing valuable suggestions.

1. Prof. T. Mohan Das

2. Prof. Bala Manimaran

3. Prof. S. Abraham John

4. Prof. S. Velmathi

5. Dr. K. Sarkunam

6. Prof. E. M. Shankar (B.S.)

7. Dr. R. Arun (P)

8. Dr. V. Rajendiran

9. Dr. V. Prabha

10. Dr. John Prakash

11. Dr. S. G. Ramkumar

Dr. Mohan Das

Approved through e-mail

Approved through e-mail

Approved through e-mail

Dr. K. Sarkunam 22/09/2021

R. Arun 22/09/21

V. Rajendiran 21/09/21

Dr. V. Prabha 22/09/2021

Dr. John Prakash 21/09

Dr. S. G. Ramkumar 21/09

  
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**Minutes of the Board of Studies Meeting of the Department of Chemistry, CUTN**

The Board of Studies meeting for the Int. M.Sc. Chemistry, PGDCLT, M.Sc. Chemistry and Ph.D. programmes, held on 6<sup>th</sup> March 2023 (11:00 AM to 1:00 PM) in the Seminar Hall, Department of Chemistry, CUTN.

**Members present for the meeting**

Sl. No	Name and Contact Details	Remarks	Signature
1	<b>Prof. S. Nagarajan</b> Professor & Head Department of Chemistry, CUTN	Chairperson & Convener	 06/03/2023
2	<b>Prof. T. Mohan Das</b> Professor & Dean (School of Basic and Applied Sciences), Department of Chemistry, CUTN	Member	 06/03/2023
3	<b>Dr. A. Sakthivel</b> Professor & Head Department of Chemistry Central University of Kerala, Kerala	External Member	attended
4	<b>Dr. V. M. Biju</b> Associate Professor & Head Department of Chemistry National Institute of Technology, Trichy	External Member (Attended through Google Meet)	} attended through online
5	<b>Dr. U. P. Senthilkumar</b> , Head, Recepts Ltd. Hyderabad (Expert from Industry)	External Member (Attended through Google Meet)	
6	<b>Dr. K. Sethuraman</b> Associate Professor & Head Department of Materials Science, CUTN	Observer	 6/3/23
7	<b>Dr. V. Rajendiran</b> Assistant Professor Department of Chemistry, CUTN	Member	 6/3/23
8	<b>Dr. Vittal Babu Gudimetta</b> Assistant Professor Department of Chemistry, CUTN	Member	 06/03/23
9	<b>Dr. M. Shiva Prasad</b> Assistant Professor Department of Chemistry, CUTN	Member	 6/3/23
10	<b>Ms. Rebecca Jeniffer</b> Research Scholar Department of Chemistry, CUTN	Alumni	 06/03/23

*P. Senthilkumar*  
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Dr. V.M. Biju from NIT-Trichy and Dr. U P. Senthilkumar, Recepts Ltd. (Expert from Industry) attended the meeting though online (Google Meet).

Prof. P. Anbarasan, Department of Chemistry, IIT Madras, and Dr. K. Venkata Saravanan, Assistant Professor, Department of Physics, CUTN, could not attend the meeting due to their prior commitments/on leave.

The need and the highlights of the revised syllabus for the programmes *i.e.* Int. M.Sc. Chemistry, M.Sc. Chemistry, PGDCLT, and Ph.D. coursework were explained to the members by the Chairman, BoS. Based on the presentation, detailed discussions were held, and members provided the following recommendations, and accordingly, changes were made to the existing syllabi.

- 1 Based on the feedback from students and faculty, the syllabi of Int. M.Sc. Chemistry, M.Sc. Chemistry and PGDCLT are revised.
- 2 Members suggested a minor rearrangement of a few units in the inorganic chemistry portion and incorporating a couple of topics in the physical chemistry portion, respectively.
- 3 In the M.Sc. and Int. M.Sc. programmes, "Skill Development" and "Research methodology" courses have been included.
- 4 The "Research Methodology (4 credits)" course can be attended from MOOC or as and when offered by the Department during the first three semesters of the M.Sc. programme and the seventh, eighth, and ninth semesters of int MSc.
- 5 The internship is incorporated into the curriculum of Int. M.Sc. and M.Sc. with four credits.
- 6 The syllabus of Analytical Chemistry is revised for the PGDCLT.
- 7 Experts and Members suggested including the latest editions of the books for all the courses.
- 8 The practical courses are updated with new experiments to meet the need of industry & academia.
- 9 The total credits for M.Sc. Chemistry and Int. M.Sc. Chemistry courses are respectively enhanced to 80 and 204
- 10 Student internships should be flexible during any summer break with four to five years of Int. M.Sc. and within the first three semesters of M.Sc. Chemistry.
- 11 Flexibility in transferring credits for any relevant courses from other institutions and MOOCS as per CUTN norms.

The newly revised syllabi will be adopted from the second semester onwards for the present Int. M.Sc., M.Sc. and PGDCLT programmes offered by the Department.

External experts and all the members strongly recommended the Department get access to Scifinder, since the majority of the curriculum and coursework requires the access of extensive literature database.

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- 14 The members recommended the award of B.Sc. and M.Sc. Chemistry degree at the end of the Int. MSc. Chemistry programme.

All the suggestions in the syllabus made by the BoS members were incorporated into the curriculum and syllabi. Finally, the Head of the Department thanked all the members for attending the meeting and their suggestions.

1 Prof. S. Nagarajan

N. Nagarajan  
06/03/2023

2 Prof. T. Mohan Das

T. Mohan Das  
06/03/2023

3 Dr. A. Sakthivel

4 Dr. V. M. Biju

5 Dr. U. P. Senthilkumar

} Email appraisal  
attached

6 Dr. K. Sethuraman

K. Sethuraman  
6/3/23

7 Dr. V. Rajendiran

V. Rajendiran  
6/3/23

8 Dr. Vittal Babu Gudimetla

V. Gudimetla  
06/03/23

9 Dr. M. Shiva Prasad

M. Shiva Prasad  
6/3/23

10 Ms. Rabecca Jeniffer

R. Jeniffer  
06/03/23

R. Senthilkumar

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