

DEPARTMENT OF SCIENCE & HUMANITIES

Minutes of the Meeting of the Board of Studies, held in the T&P facility on 16.04.2016, at VFSTR University, Vadlamudi.

Members Present:

- 1. Dr. D.S Kesava Rao (Subject Expert) Professor of English, NIT, Warangal, T.S.
- 2. Dr. Prakash Kona (Subject Expert) Professor, EFLU, Hyderabad, T.S.
- 3. **Dr. N. Srinivasu**, Chair Person, BOS for English and Head, Dept. of Sciences and Humanities, VFSTR University, Vadlamudi.
- 4. **Ms. A. Sharada**, Assoc. Professor, Dept. of Sciences and Humanities, VFSTR University, Vadlamudi.
- 5. **Dr. S.D. Sasi kiran,** Assoc. Professor, Dept. of Sciences and Humanities, VFSTR University, Vadlamudi.
- 6. **Mr. G. Nageswara Rao**, Asst. Professor, Dept. of Sciences and Humanities, VFSTR University, Vadlamudi.
- 7. Members of the faculty from Dept. of Sciences and Humanities (Ms. T. Swathi, Mr. V. Chandrasekhar Rao, Mr. U. Sri Ranganath, Ms. Sk. Shakila Bhanu and Dr. M. Ramana Raju) attended the meeting.

Agenda:

Review of three papers related to Teaching of English and Skills enhancement for employability being proposed for I, II and III B.Tech, as per R- 16.

- 1. Technical English Communication (TEC) for I. B.Tech
- 2. English Proficiency Course (EPC) for I. B. Tech
- 3. Professional Ethics, Values and Human Rights (PEVHR) for III B.Tech

Proceedings:

The members of Board of Studies accepted the syllabus proposed for the above mentioned courses and suggested the following modifications:

For TEC:

- 1. The experts were of the view that the course is heavily loaded with technical and scientific jargon and recommended the inclusion of creative writing to make the course more interactive.
- 2. Instead of the unit on *Energy*, it was agreed to have the unit on *Media Matters*.
- 3. It was decided to include the text on Renewable vs. Non renewable energy sources from the Unit on Energy to Unit I on Environmental Consciousness.
- 4. The experts suggested inclusion of exercises and texts related to 'Reporting, Social Media: Blogging, Facebook, Twitter (acceptable & non-acceptable content)'. Students are to be given writing exercises on film & book reviews.
- 5. It was also felt that students should be trained on use of Gender Sensitive Language to avoid sexist language at work place. It is to be included in Unit-IV.
- 6. Under the Skill Development Section of Unit IV, for Summarizing, it was suggested to include the text on "Flight from Conversation" (New York Times); for Note making, it was agreed to go with Nandan Nilakeni's "In search of our energy solutions" (from the Unit on Energy).

For EPC:

The subject experts were satisfied with the proposed contents and recommended for its adoption without any changes. They advised that we should continue to conduct the assessment in the same pattern, i.e., activity based.

For PEVHR:

The experts suggested going with more practical examples from various social issues to throw light on all four skills. They also advised the internal members of the Board to plan for a textbook to fulfill the needs of the students of the university.

Prof. D.S. Kesava Rao

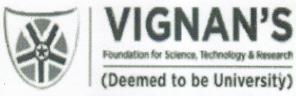
Ms A Sharada

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Mr. K.V.B. Ravindra Babu

Dr. M. Sreeniyasult (Chairman)

Mr. B. Suresh Kumar-



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Division of Mathematics

Department of Science and Humanities

Board of Studies-Mathematics Minutes of Meeting

Date: 16.04.2016

Members present

1. Dr.N.Srinivasu, HOD, Dept of Science & Humanities, VFSTR, Vadlamudi Chairman

2. Dr.Y.N.Reddy, *Professor*, NIT Warangal Subject Expert

3. Dr.P.L.N. Varma, Head Division of mathematics, VFSTR, Vadlamudi Member

4. Mr.U.V.manoj Kumar, Asst. Professor, VFSTR, Vadlamudi Member

The following member could not attend the meeting

The Board of Studies in Mathematics met today and discussed the syllabus for various B.Tech programmes. After detailed discussions, the syllabus for the following courses were finalized.

- 1. Engineering Mathematics-I with laboratory component
- 2. Engineering Mathematics-II with laboratory component
- 3. Basic Mathematics-I with laboratory component
- 4. Basic Mathematics-II with laboratory component

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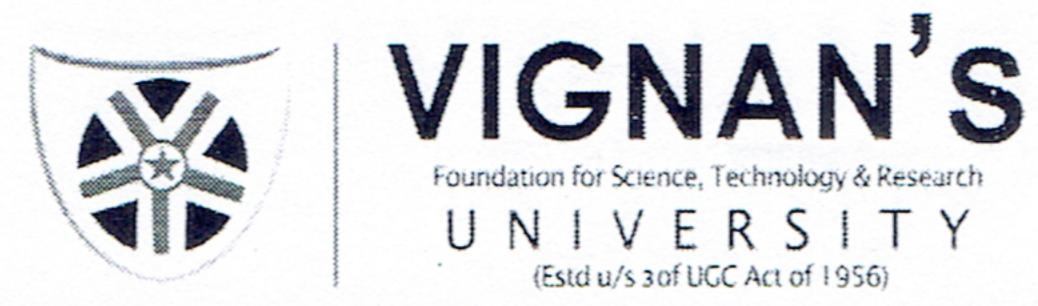
- 5. Complex variables & Transformations
- 6. Probability & Statistics

Major changes have taken place in the courses with laboratory component added to the majority of the courses. And inplace of special functions transformations were introduced. Further, suggestions were taken about the topics to be included in the mathematics refresher course for 2016 batch B.Tech students.

(Dr. N. Srinivasu)

(Dr. Y. N. Reddy)

(Mr. U. V. Manoj Kumar)



DEPARTMENT OF SCIENCE & HUMANITIES

Minutes of Board of Studies Meeting - Engineering Chemistry

BOS committee for chemistry is constituted with the following members. The board of studies meeting is conducted from 10.00 am onwards on 16-04-2016 at VFSTR University, Vadlamudi.

- 1. Dr. K. Laxma Reddy Professor of Chemistry, NIT, Warangal.
- 2. Dr.T.Krishnaji, Senior research scientist, Dr.Reddy's laboratories, Hyderabad.
- 3. Dr. N.Srinivasu (BOS, Chairman), VFSTR University.
- 4. Dr.Ch.Murthy, Professor in chemistry, VFSTR University.
- 5. Dr. D. Nagaraju, Associate Professor in Chemistry, VFSTR University.
- 6. Dr.K.Prabhakara Rao, Associate Professor in Chemistry, VFSTR University.
- 7. Dr.Sk.Anwar, Asst. Prof in chemistry, VFSTR University.
- 8. Ms. N.Satyasree, Asst. Prof in chemistry, VFSTR University.
- 9. Ms. M..Sireesha, Asst. Prof in chemistry, VFSTR University.
- 10. Mr. K.Maria Das, Asst. Prof in chemistry, VFSTR University.

The Decisions are:

- ❖ It is decided to revise Engineering Chemistry Theory and Lab with different components as per the requirements of Engineering fields and Industry.
- Syllabus is designed to gain handson experience by the students through acquiring practical knowledge from strengthened laboratory content.
- According to the decisions made Engineering Chemistry and engineering Chemistry

 Lab syllabus is framed for I B.Tech, common to all branches.



Both Engineering Chemistry Theory and Laboratory courses are decided to modify in such a way that they are falling under the category of Skill development/Employability.

The unit wise proposed modifications are as follows:

Engineering Chemistry (Theory)

Unit – I

 Numerical problems based on Hardness and EDTA titration method are proposed in order to familiarize the students with Hardness related calculations and to determine the hardness of water by EDTA method.

Unit-II

- Existing unit II in R13 (Corrosion Topic) EC syllabus is segregated into two separate units namely **Electrochemistry** (**Unit II**) and **Science of corrosion** (**Unit III**).
- Based on the suggestions from BOS members, in addition to existing syllabus of Electrochemistry, few more topics such as Reference electrodes, Ion-selective electrodes, and Calculation of EMF of various electrochemical cells are included in the unit II.

Unit-III

• Science of corrosion is strengthened by including advanced corrosion control methods along with the existing corrosion syllabus.

Unit – IV

• Due to the potential use of conducting polymers in engineering applications, the concept of the conducting polymers, synthesis and doping process are included in the polymer's unit.

Unit - V

 Since the identification of functional groups from vibrational frequencies (proposed in R13) is somewhat advanced level to the first-year engineering students. As per the BOS members suggestions, it was removed from the R16 Engineering Chemistry course and instead of that more focus given to the principles and instrumentation of UV-Visible and Infra-Red Spectroscopy contents.

Engineering Chemistry Lab:

Engineering Chemistry lab is introduced for all branches of engineering courses by correlating most of the theory topics to excel students with what they learn in the classroom.

Modifications proposed are as follows:

- 1. Volumetric analysis is confined to four experiments to include more experimental part with instruments. Out of four three experiments measure the quality of water.
- 2. Ion exchange method experiment is included in connection with Unit I.
- 3. pH-metric titration of strong acid vs strong base is included in connection with Unit II.
- 4. Study of rate corrosion is included to correlate Unit III with lab.
- 5. Preparations are retained as such for which the mechanism behind is studied in Unit IV.
- 6. Simultaneous determination of metal ions by colorimetric method is included to check for validity of Beer Lambert's law, which is the concept involved in Unit V.



Department of Science & Humanities

Subject: Organic Chemistry & Organic Chemistry Lab

The Board of Science (BOS) meeting for **Organic Chemistry and Organic Chemistry Laboratory** for **B.Tech II year, Chemical Engineering**, was held on **16-4-16**. **Dr. K. Laxma Reddy**, Professor of Chemistry, NIT Warangal and **Dr. T. Krishna Ji**, Scientist, Dr. Reddy's Laboratories were the external BOS members. Dr. Shaik Anwar, Dr. D. Nagaraju, M. Sireesha, N. Satyasree were the internal members from VFSTRU.

The session started at around 9.00am with Chapter/topic thorough discussion keeping in view of the requirement from industry. Based on the suggestions given by Prof. K.. Laxma Reddy and Dr. Krishna Ji the modified syllabus was proposed. The modifications are shown in the Annexure-I.

External Members

- 1. Dr. A. Laxma Reddy, Professor, NIT-Warangal
- 2. Dr. Krishna Ji, Scientist, Dr. Reddy's Lab, Hyderabad.

Internal Members

1. Prof. N. Srinivasu (BOS Chairman) Head, Dept. S&H.

M. Summoly

2. Prof. Chavali Murthy (Dean, FC), VFSTRU

3. Dr. Shaik Anwar, Assistant Professor, Dept of S&H, VFSTRU

4. Dr. D. Nagaraju, Associate Professor, Dept of S&H, VFSTRU

5. Ms. M. Sireesha, Assistant Professor, Dept of S&H, VFSTRU

6. Ms. N. Satyasree, Assistant Professor, Dept of S&H, VFSTRU

Following are the outcomes of BOS meeting:

❖ It is decided to make changes in Organic Chemistry course for II B.Tech Chemical Engineering Branch as per the requirement of current industry and engineering applications.



Annexure-I

Modifications Proposed for Organic Chemistry in BOS Meeting on 16-4-2016 are

The session started at around 9.00am with Chapter/topic thorough discussion keeping in view of the requirement from industry. Based on the suggestions given by Prof. K. Laxma Reddy and Dr. T. Krishna Ji the modified syllabus was proposed.

Modifications Proposed

Unit 1

Topics Introduced: Nitrenes, Carbenes, Benzyne, Mesomeric Effect.

Unit 2

Topics Introduced: Fries Rearrangement, Cannizzaro Reaction, Anti-Markovnikov's Rule.

Unit 3

Topics Deleted: Organic named reactions: Wolf–Kishner reduction, Hoffmann rearrangement, Sandmeyer reaction, Diels–Alder reaction.

Unit 4

Topics Introduced: Optical Rotation

Topics Deleted: Conformational isomerism in cyclohexane

Unit 5

Topics Deleted: Quinoline, Iso-quinoline



Modifications Proposed for Organic Chemistry Lab in BOS Meeting on 16-4-2016 are

- I. Criteria of purity of solid and liquid compounds: No Change
 - a. Determination of Melting point
 - b. Determination of Boiling point
- II. Detection of extra elements in organic compounds: No Change
 - c. Nitrogen
 - d. Sulphur
 - e. Halogens
- III. Identification of an unknown substance from the following organic compounds: No Change
 - f. Acids
 - g. Alcohols
 - h. Aldehydes
 - i. Amides
 - j. Amines
 - k. Carbohydrates
 - 1. Esters
 - m. Ketones
 - n. Nitro Group
 - o. Phenols
- IV. Preparations: Change

Preparation of Diel's Alder Adduct



BOARD OF STUDIES Subject: ORGANIC CHEMISTRY

Lectures: 03

Tutorial: 01

Credits: 04

OBJECTIVES: The designing and preparation of most organic compounds and pharmaceuticals is based on the reaction mechanism involved in the reaction. This course is aimed at making the student familiar with reaction mechanism and stereo chemical aspects.

EXPECTED OUTCOMES: Students are expected to

- a. Reaction Mechanism
- b. Named reactions
- c. Characteristics and properties of various functional groups
- d. Stereochemical Aspects
- e. Heterocyclic chemistry
- f. Retrosynthetic stratergy

UNIT – I [10 hrs]

(a) Reaction intermediates: Bond fissions, carbanions, carbonium ions, Free radicals, Nitrenes, Carbenes, Benzyne, Nucleophiles and electrophiles

(b) Polar effects: Inductive effect, Resonance, Hyper conjugation, Electromeric effect, Mesomeric Effect

UNIT – II [10 hrs]

- (a) Types of organic reactions: Electrophilic reactions: Friedal Craft's reactions, Fries Rearrrangement, Reimer Tiemann reaction, Nucleophilic reactions: Aldol condensation, Cannizaro Reaction.
- (b) Free radical reactions: Halogenation of alkane, Addition of HBr to alkene in presence of peroxide, Anti-Markovnikov's Rule.

UNIT – III [10 hrs]

Preparations, and Reactions of Alcohols, Phenols, Carboxylic acids, Aldehydes, Ketones, Amines.

UNIT – IV [10 hrs]

a) Stereo chemistry: Stereo isomerism, Optical isomerism, Symmetry, Optical Rotation, Chirality, Lactic acid, Tartaric acid, Enantiomers, Diastereomers, R and S nomenclature, Racemic mixture and resolution methods.

b) Geometrical Isomerism, E and Z nomenclature

UNIT – V [10 hrs]

Heterocyclic compounds: preparation and Reactions of 1) Furan 2) Thiophene 3) Pyrrole 4) Pyridine

TEXT BOOKS:

1. Arun Bahl and B.S. Bahl, "Text Book to Organic Chemistry", 18th edition, S. Chand, 2009.

REFERENCE BOOKS

- 1. I. L. Finar; "Organic Chemistry", Vol I, 6th edition, Longman Scientific Publications, 2006.
- 2. Somendra Nadh Sanyal, "Named reactions, Rearrangements and Reagents", Bharathi Bhavan Publications, 2003.
- 3 O.P. Agarwal, "Reactions and reagents", 46th edition, Goel Publications, 2005.
- 4 R.T Morrison and R.M. Boyd, "Organic Chemistry" 6th edition, Pearson Publications, 2008.



(ACCREDITED BY NAAC WITH 'A' GRADE)

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DEPARTMENT OF SCIENCES & HUMANITIES Minutes of Board of Studies Meeting – Engineering Physics

The Board of Studies (BoS) meeting is held on 16-04-2016 to review I B.Tech Engineering Physics and Engineering Physics laboratory courses at VFSTR University campus, Vadlamudi.

Members Present:

- 1. Dr. N. Srinivasu, BoS Chairman, Professor & HoD, Department of S & H, VFSTRU, Guntur
- 2. Dr. M. Sai Sankar, Professor, Dept. of Physics, NIT, Warangal
- 3. Dr. M. Venkateswarlu, Manager R & D, Amar Raja Batteries, Tirupati
- 4. Dr. M. Sreenivasulu, Professor, Dept. of S & H, VFSTR University, Guntur
- 5. Dr. K. V. Madhuri, Associate Professor, Dept. of S & H, VFSTR University, Guntur
- 6. Mr. J. N.Kiran, Assistant Professor, Dept. of S & H, VFSTR University, Guntur

Minutes of the meeting:

- 1. The committee is greeted by Dr. M. Sreenivasulu, Professor of Physics and a brief appraisal of the proposed syllabus is given to the committee.
- 2. Unit wise discussion as per the proposed syllabus has been taken up and necessary modifications are incorporated.
- 3. In place of Unit-I (Physical Optics), contents of previous syllabus of R13 regulation the topics of Nanomaterials and functional materials have been included in R16 regulation.
- 4. In Unit-I of the proposed syllabus topic wise specifications were made.
- 5. In Unit II of the proposed syllabus semi conductor laser is introduced.
- 6. In Unit III of the syllabus particle accelerators are introduced to lay emphasis on the application of Quantum Mechanics.
- 7. The topic of non linear behavior of optical materials has been suggested in place of Nanoscience and technology of R13 regulation by Dr. M. Sai Sankar.
- 8. The title of Unit V has been changed to Nanometerials with the inclusion of new chapter functional materials with respect to R13 regulation as per the suggestion of Dr. M. Venkateswarlu.

- 9. The committee made nearly 35% changes to R-13 syllabus of Engineering Physics and reviewed all changes so that the course would be skill oriented.
- 10. The experiments of Engineering Physics lab course has been finalized in tandem with the Engineering Physics course and made 25% change to the previous lab course to be with skill orientation. 13 experiments are finalized and students are expected to perform at least 10.
- 11. The experiments are
 - A) Determination of velocity of Ultrasonic waves in liquids.
 - B) Melde's experiment Transverse and Longitudinal modes.
 - C) Determination of wavelength of He- Ne Laser.
 - D) Determination of Plank's constant.
 - E) Determination of frequency of alternating current-Sonometer.
 - F) Determination of magnetic field along the axis of a circular coil using Stewart -Gee's apparatus.
 - G) Determination of band-gap of a semiconductor.
 - H) Determination of Hall coefficient.
 - I) Thermal conductivity of a bad conductor Lee's method.
 - J) Determination of Numerical aperture Optical fiber.
 - K) Determination of efficiency of solar cell.
 - L) Study of V-I characteristics of LED.
 - M) Determination of Seebeck coefficient- Seebeck effect

Dr. N. Srinivasu N. Srimbern Dr. M. Sai Sankar M. Li Shemen

Dr. M. Venkateswarlu

Dr. M. Sreenivasulu

Dr. K. V. Madhuri ()

Mr. J. N. Kiran