



NEW HORIZON
COLLEGE OF ENGINEERING

APPLIED SCIENCES & HUMANITIES
BOARD OF STUDIES MEETING

DATE: 13 July 2024

VENUE: Nirvana, NHCE

TIME: 10am onwards

HOD-APPLIED SCIENCES
New Horizon College of Engineering
Bengaluru - 560 103

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APPLIED SCIENCES & HUMANITIES

BOARD OF STUDIES MEETING

Agenda 1: Discussion on syllabus for

1. Applied Physics for Engineers
2. Applied Chemistry for Engineers
3. Applied Mathematics for Engineers-I
4. Applied Mathematics for Engineers – II
5. Essential English
6. Professional writing skills in English
7. Constitution of India and Professional Ethics
8. Balake Kannada
9. Samskrithika Kannada
10. Environmental studies
11. Engineering Innovations in Healthcare

(Including discussion on Course Outcomes, RBT levels, Programme Outcomes, and Reference Books).

- **Agenda 2:** Syllabus finalization and approval
- **Agenda 3:** Discussion on CIE and SEE

APPLIED SCIENCES & HUMANITIES
MEMBERS OF THE BOARD OF STUDIES

S. No	Category	Nomination of the committee	Name of the person	Designation & Affiliation
1	Head of the Department	Chairperson	Dr. Anusuya Devi VS	Prof & HOD- Applied Sciences, NHCE
			Dr. Revathi V	Prof, Physics & Dean R&D Physics, NHCE
			Dr. Srinivasa G.	Professor and Head, Mathematics, NHCE
			Dr. Sowmya Narayanan	Director, CLSSD
2	Special Invitees	1	Dr. Manjunatha	Principal, NHCE
		2	Dr. R.J. Anandhi	Dean-Academics, NHCE
3	Faculty member at different level with different specialization	Members		
		1	Dr. Prashanth K S,	Professor Physics, NHCE
		2	Dr. Jisha P K,	Asso. Prof, Physics, NHCE
		3	Dr. Raghu, M S	Asso. Prof Chemistry, NHCE
		4	Dr. Subashini,	Asso. Prof, Chemistry, NHCE
		5	Dr. Ananda K.	Senior Assistant Professor, Mathematics, NHCE
		6	Dr. Padma Priya D. D.	Senior Assistant Professor, Mathematics, NHCE
		7	Ms. Sunitha V	Asst. Professor, CLSSD, NHCE
		8	Ms. Vijaya	Sr. Asst. Professor, CIP, NHCE
		9	Dr. Revathi RP	Sr. Asst. Professor – Kannada, NHCE
4	Subject expert from outside the college nominated by Academic Council	Members		
		1	Dr Bhuvaneshwar Babu	Professor Department of Physics RVCE, Bangalore
		2	Dr Hariharan	Professor Department of Physics Sir MVIT, Bangalore
		3	Dr. Kalyan Raj	Professor , Department of Chemistry, BMS College of Engineering, Bengaluru

		4	Dr. Manjunatha M	Prof&HOD, Chemistry, East point college of Engineering & Technology, Bengaluru
		5	Dr. Dinesh P. A.	Professor-Department of Mathematics Ramaiah Institute of Technology, Bengaluru
		6	Dr. G. Jayalatha	Professor and Head-Department of Mathematics, R V College of Engineering, R V Vidyanikethana Bengaluru.
5	Experts from outside the college nominated by VTU	Member		
		1	Dr. Aslam Pasha	Professor Department of Physics Dayanand Sagar College of Engineering, Bengaluru
6	Representative from Industry / Corporate sector / allied area related to placements, nominated by Academic Council	Members		
		1	Dr. Balaraju	Chief Scientist & Dy. Head Surface Engineering Division. CSIR, NAL
7	Meritorious alumni nominated by Principal	Members		
		1	Mr. Rohan Siddeshwara	2020-2024 Batch Associate Data scientist. Akaike Technologies
8	Co-opted members	Members		
		1	Dr. Ramachandra Naik	Senior Assistant Professor, Physics, NHCE
		2	Mr. Shashidhar. S	Senior Assistant Professor, Chemistrys, NHCE
		3	Dr. Rashi Khubnani	Senior Assistant Professor, Mathematics, NHCE

Welcome address by Chairman of BOS and Introduction of members

Dr. Anusuya VS, HOD Applied Sciences, welcomed Dr. Manjunatha, Principal, Dr. Anandi RJ, Dean Academics, and members of the Board of Studies. She provided an overview of the institution's recent accomplishments. She also discussed the Applied Sciences Department's research and development achievements. She provided AY 22-23 and 23-24 results-oriented targets and achievements. She also gave stakeholder comments on the scheme and syllabus.

Title of the agenda and minutes

Discussion and Scrutinization of Applied Sciences and Humanities courses

The members' welcome and introduction session was followed by an introduction to the schemes for the first and second semester BE. Stakeholder comments led to a move of the **Innovation and Design Thinking** course to higher semesters. The I-year curriculum includes **Environmental studies** with the title **Environment and Disaster Management**, which is taught in the sixth semester according to the VTU scheme. Title the course **Scientific Foundations for Health** has been modified as **Engineering Innovations in Healthcare**. Except for these modifications, all of the remaining Applied sciences and Humanities subjects will continue as per the 2022-23 scheme. The respective BOS chairman sought members' valuable suggestions in setting up the Applied Sciences and Humanities curriculum for the academic year 2024-25.

1. Minutes of the meeting - Applied Chemistry for Engineers

- Dr. Anusuya Devi, explained that Applied Chemistry scheme is according to the VTU.
- Dr. Kalyan Raj mentioned that 70% syllabus can be kept common for all the streams of engineering.
- Dr Raghu presented module wise syllabus of Applied **Chemistry for Engineers** before committee members. Module wise suggestions were as follows

Module 1. Syllabus is very good, battery characteristics has to be specified, super capacitors should not be repeated in physics subject.

Module 2.

- Module title should be changes as “**Corrosion science and Engineering**”.
- **Analytical techniques** topic should be moved to third module to manage the given lecture hours effectively to complete the syllabus.
- Change the lab topic from Iron to Rust solution.

Module 3. Primary and secondary air pollutants - sources and effects should be removed and shall be included in **Environment and Disaster Management course**.

Module 4. No changes were recommended in the syllabus of **Display systems and Nano materials**. **Analytical techniques** should be shifted from third module to 4th module.

Module 5.

- Application chemical sensors syllabus should be reduced
- Applications of sensor in industry should be specified.
- Introduce **Flame photometry** as Demo experiment
- Module 5 for mechanical stream title should be given as **Phase rule and Materials for Mechanical Engineering Applications**.
- In mechanical stream, viscosity of lubricants, copper in brass estimation, Iron in TMT bar experiment can be added.

Discussion on CIE and SEE:

- Self-study topics can be evaluated through quiz, assignment or presentations.
- Viva should be included in regular lab evaluation

Discussion on Course outcomes: The proposed course outcomes and their correlation to program outcomes were approved. Suggested to map each CO to more than one module

2. Minutes of the meeting - Applied Physics for Engineers

Dr. Prashanth presented module wise syllabus of **Applied Physics for Engineers** before committee members. The following suggestions were given by the BOS members in the scheme and syllabi.

Module 1:

- The concept of wave group to be included.
- The relationship between phase velocity and group velocity to be introduced.
- Qualitative discussion of broadening of spectral lines to be included.
- For Self-study the finite potential well and quantum tunnelling is recommended.

Module 2: To include attenuation coefficient derivation

Module 3:

- Introduce review of CFET and failures of CFET (qualitative discussion)
- Application of hall effect to be swapped with Maglev and Squids for self-learning

Module 4: The introduction of Sensors and IoT was highly appreciated

Module 5:

The topics AFM and XPS to be removed as it is exhaustive.

The particle size determination experiment to be mapped with Module 5.

Discussion on CIE and SEE:

- Self-study topics can be evaluated through quiz, assignment or presentations.

Discussion on Course outcomes: The proposed course outcomes and their correlation to program outcomes were approved.

The Mobile Health in CIEH should be taught with emphasis on Regulations in different countries

3. Minutes of the meeting - Applied Mathematics for Engineers

Dr. Srinivasa G presented module wise syllabus of **Applied Physics for Engineers** before committee members. The following suggestions were given by the BOS members in the scheme and syllabi.

1. External suggested to include Lab in Applied Mathematics for Engineers.
2. The lab should be introduced as Experiential learning-A new learning process, which will support Criteria-1 of NBA, NAAC, etc.,
3. There should be two teachers in each lab and tutorial.
4. As per the VTU- Theory, Tutorial and Practical must be in the ratio 2:1:1.
5. External BoS members strongly suggested the Contact Hours for 7 hours (i.e., 2:2:2:1).
6. Proposed syllabus for I year BE-First Semester-Applied Mathematics for Engineers-I (24MAT11-AIM, CSE, CDS, ISE and ECE, EEE, MEE), BE-Second Semester-Applied Mathematics for Engineers-II (24MAT21-AIM, CSE, CDS, ISE and ECE, EEE, MEE), Computational Mathematics-24MATC11 for I Semester MCA and Mathematics for Computational Thinking-24SCS11 for I Semester M. Tech was discussed module wise and modified as per the global standard.
7. All CO's were reframed as per the modified syllabus.

4. Minutes of the meeting - Communicative English and Professional Communication

Mrs. Sunitha presented the proposed module wise syllabus. After due deliberations, BOS Committee accepted the syllabus of Communicative English and Professional Communication.

Discussion on CIE and SEE:

The proposed assessment pattern through CIE and SEE were approved

Discussion on Course outcomes: The proposed course outcomes and their correlation to program outcomes were approved

5. Minutes of the meeting - Constitution of India and Professional Ethics

Ms. Vijaya presented the proposed module wise syllabus. After due deliberations, BOS Committee accepted the syllabus without any modifications.

Discussion on CIE and SEE:

The proposed assessment pattern through CIE and SEE were approved.

Discussion on Course outcomes: The proposed course outcomes and their correlation to program outcomes were approved

6. Minutes of the meeting - Balake/ Samskrithika Kannada

Dr. Revathi RP presented the proposed module wise syllabus. After due deliberations, BOS Committee accepted the syllabus with few modifications in the syllabus.

Discussion on CIE and SEE:

The proposed assessment pattern through CIE and SEE were approved.

Discussion on Course outcomes: The proposed course outcomes and their correlation to program outcomes were approved

7. Minutes of the meeting - Environment and Disaster management.

- Dr. Subhashini presented the proposed module wise syllabus module wise.
- Members advised to use presentation and video method as it is one credit system.
- In module 3 air pollution, sources and effects can be added.

- Title of the subject can be modified as Environmental and disaster management.

Discussion on CIE and SEE:

CIE other than IA test should include student presentations and assignments with innovative ideas that are helpful for health care industry.

Discussion on Course outcomes: The proposed course outcomes and their correlation to program outcomes were approved

8. Minutes of the meeting - Engineering Innovations in Health care

Dr. Ramachandra Naik presented the proposed syllabus. After due deliberations, BOS Committee accepted the syllabus for Engineering Innovations in Health care with following one suggestion that

The Mobile Health should be taught with emphasis on Regulations in different countries

Discussion on CIE and SEE:

CIE other than IA test should include student presentations and assignments with innovative ideas that are helpful for health care industry.


Discussion on Course outcomes: The proposed course outcomes and their correlation to program outcomes were approved

Members attended

Date. 13.07.2024

Name of the person	Designation & Affiliation	Contact Number	Signature
Dr. Manjunatha	Principal, NHCE		
Dr. R.J. Anandhi	Dean-Academics, NHCE	9 -	<i>Anandhi</i>
Dr. Anusuya Devi VS	Prof & HOD- Applied Sciences, NHCE	7019714060	<i>Anusuya</i>
Dr. Revathi V	Prof & Dean R&D - Physics, NHCE	9901415367	<i>Revathi</i>
Dr. Srinivasa G.	Professor and Head, Mathematics, NHCE	9449817583	<i>Srinivasa</i>
Dr. Sowmya Narayanan	Director, CLSSD	9952389218	<i>Sowmya</i>
Dr. Prashanth K S,	Professor Physics, NHCE	9986245364	<i>Prashanth</i>
Dr. Jisha P K,	Asso. Prof, Physics, NHCE	7829730339	<i>Jisha</i>
Dr. Raghu, M S	Asso. Prof Chemistry, NHCE	9844626569	<i>Raghu</i>
Dr. Subashini,	Asso. Prof, Chemistry, NHCE	9611336446	<i>Subashini</i>
Dr. Ananda K.	Senior Assistant Professor, Mathematics, NHCE	9945373291	<i>Ananda</i>
Dr. Padma Priya D. D.	Senior Assistant Professor, Mathematics, NHCE	9449271414	<i>Padma</i>
Ms. Sunitha V	Asst. Professor, CLSSD, NHCE	8105085043	<i>Sunitha</i>
Ms. Vijaya	Sr. Asst. Professor, CIP, NHCE	9781900642	<i>Vijaya</i>
Dr. Revathi RP	Sr. Asst. Professor - Kannada, NHCE	9972701926	<i>Revathi</i>
Dr. Ramachandra Naik	Senior Assistant Professor, Physics, NHCE	7204408041	<i>Ramachandra</i>
Mr. Shashidhar. S	Senior Assistant Professor, Chemistry, NHCE	9964523375	<i>Shashidhar</i>
Dr. Rashi Khubnani	Senior Assistant Professor, Mathematics, NHCE	9980619825	<i>Rashi</i>

Dr Bhuvaneshwar Babu	Professor, Department of Physics RVCE, Bangalore	9448841776	<i>Bhuvaneshwar</i>
Dr Hariharan Nalatore	Professor, Department of Physics Sir MVIT, Bangalore	9964212062	<i>Hariharan</i>
Dr. Kalyan Raj	Professor, Department of Chemistry, BMS College of Engineering, Bengaluru	9448228548	<i>Kalyan</i>
Dr. Manjunatha M	Prof&HOD, Chemistry, East point college of Engineering & Technology, Bengaluru	8892468223	<i>Manjunatha</i>

Dr. Dinesh P. A.	Professor-Department of Mathematics Ramaiah Institute of Technology, Bengaluru	9845483563	
Dr. G. Jayalatha	Professor and Head-Department of Mathematics, R V College of Engineering, R V Vidyanikethana Bengaluru.	9880693238	Jayalatha
Dr. Aslam Pasha	Professor Department of Physics Dayanand Sagar College of Engineering, Bengaluru	9620024914	M. Aslam Pasha
Dr. Balaraju	Chief Scientist & Dy. Head Surface Engineering Division. CSIR, NAL	9980567632	Balaraju
Mr. Rohan Siddeshwara	2020-2024 Batch Associate Data scientist. Akaike Technologies	9740240386	Rohan

Vote of thanks by Chairman of BOS

The Chairman of the Board of Studies extended heartfelt gratitude to all members for their invaluable contributions during the meeting. The Chairman acknowledged the insightful discussions and thoughtful suggestions that significantly enriched the deliberations.

The Chairman particularly thanked the guests their suggestions, which provided a deeper understanding of the subjects at hand. Their expertise and willingness to share their knowledge were greatly appreciated.

The Chairman also expressed appreciation to the organizing committee for their meticulous planning and seamless execution, which ensured the smooth running of the meeting. The hard work behind the scenes was acknowledged and valued.

Additionally, the Chairman extended appreciation to the support staff for their efficient handling of logistics and technical arrangements, ensuring everything ran without a hitch.

Lastly, the Chairman thanked all participants for their active engagement and dedication to the success of the board. The Chairman looked forward to continued collaboration with all members.