2021-2022

Department of Applied Sciences

Feedback survey results for AY 2021-2022

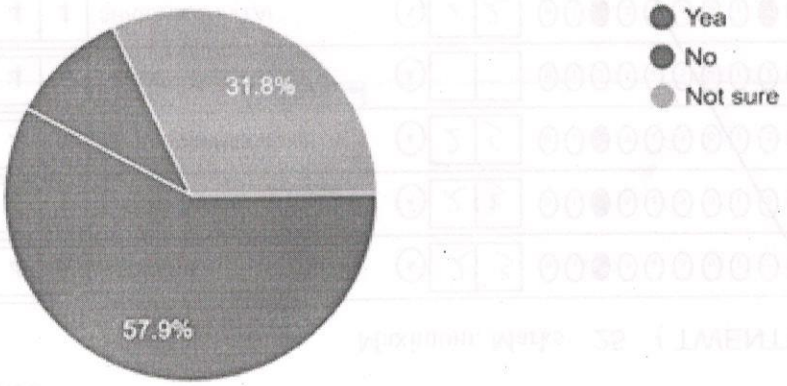
Feedback from Students on:

Scheme & Syllabus of B.E

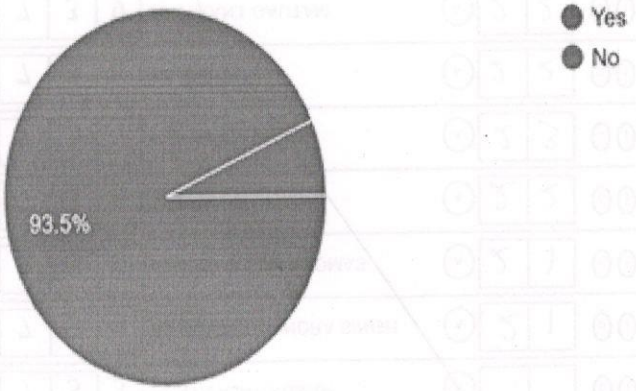
URL:
https://docs.google.com/forms/d/e/1FAIpQLSewjznaWLYQ4XeSb0JQzSJIAof8_wgxaPb3EVyILukOg_7yng/viewform?usp=sf_link

How useful is the syllabus of core courses of I/II Sem BE under Autonomy

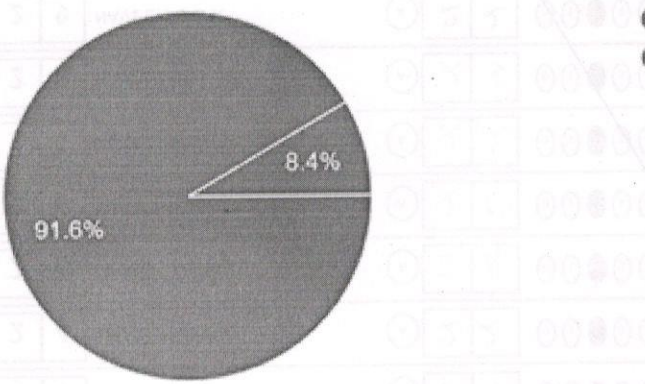
Do you think that the designed syllabus at NHCE shall add to Employability



Are you happy with skill development courses namely Professional communication & Essential English to groom you more for professional life?



Do you agree that our syllabus shall eventually help you generating more skill set?



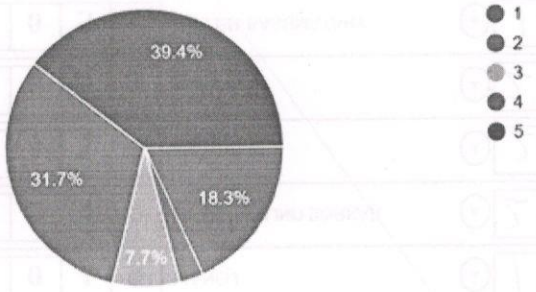
Course Exit Survey 2021-22

Engineering Physics (Theory + Lab) Course Exit Survey -Department of Appied sciences (Physics)- AY 2021-2022

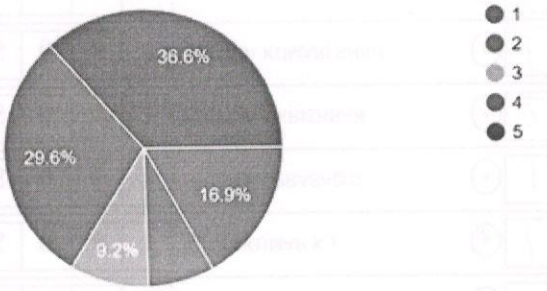
Please choose the scale from 5 to 1 for each questionnaire --- 5 being very well accomplished to 1 being needs improvement

URL:
https://docs.google.com/forms/d/e/1FAIpQLSfVNEzpix6C_J5bDi11IDhMSGCj5bTnAq8VwGP5siD5XxCgEQ/viewform?usp=sf_link

Overall course content quality

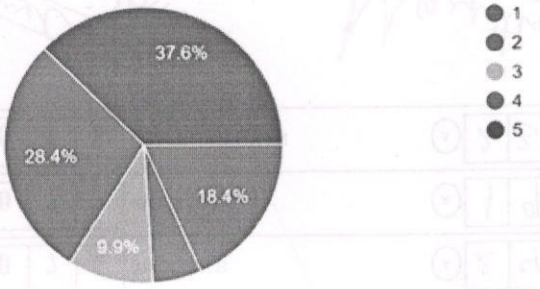


Course Outcomes (CO's) are well defined

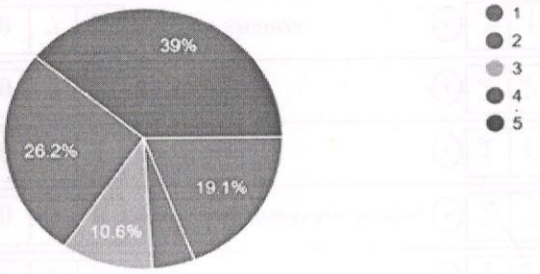


On completion of the Engineering Physics Theory and lab course, I am able to:

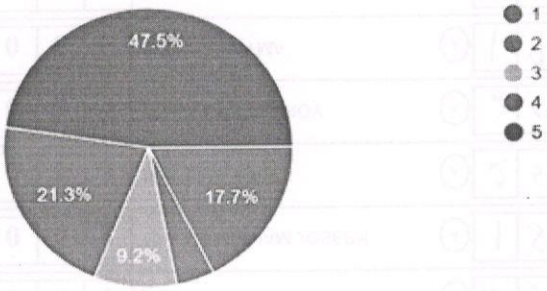
Understand the basic concepts of Quantum Mechanics



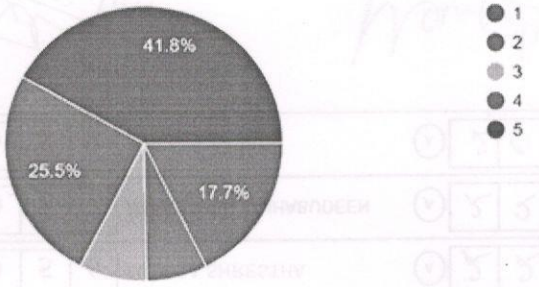
Well Apprehend basic concepts of dielectric and magnetic materials and their applications



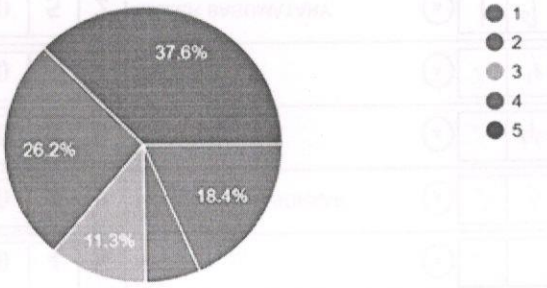
Apply Fundamental concepts of Lasers and Optical fibers



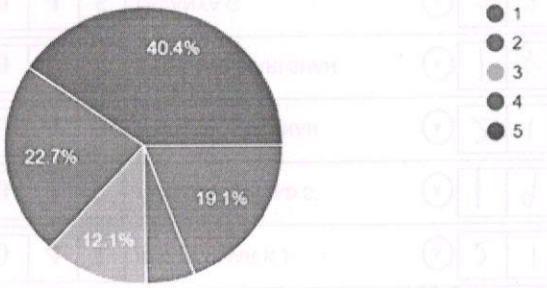
Comprehend the underlying principles of conducting and semiconducting materials for various applications.



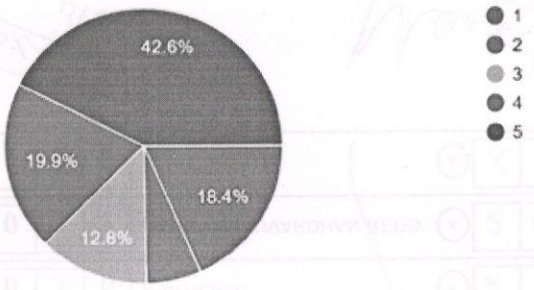
Comprehend my knowledge on Modern Engineering materials and material characterization techniques to apply in engineering trends



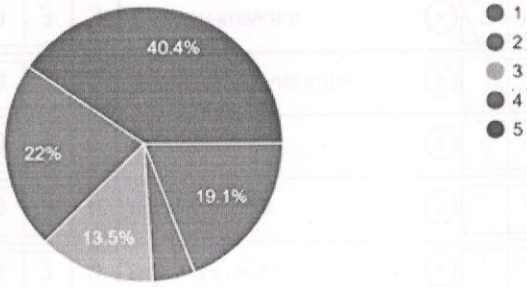
I have Acquired the ability to analyze, formulate and solve engineering physics problems.



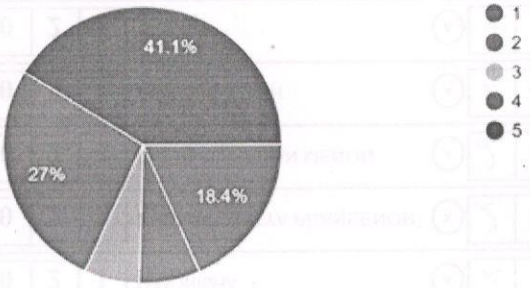
Apply scientific methods and make use of experimental methods to verify theoretical concepts through engineering lab.



Apply analytical techniques and graphical analysis to the experimental data.



Gain practical knowledge by applying the experimental methods to correlate with the theory behind optics, dielectrics, magnetic and conducting and semiconducting materials.



How good are laboratory experiments correlated with the theory syllabus

Any additions/ deletions / suggestions in course(s) for improvement

No
Nothing
-
-- -
NO
great
No nothing
Improvement required
no
Nothing
None
No any
NA
Music and art classes
More of practical work is needed than theory
Lesser number of classes or better timings
Change in college timing

Course Exit Survey_Engineering Chemistry AY 2021-22

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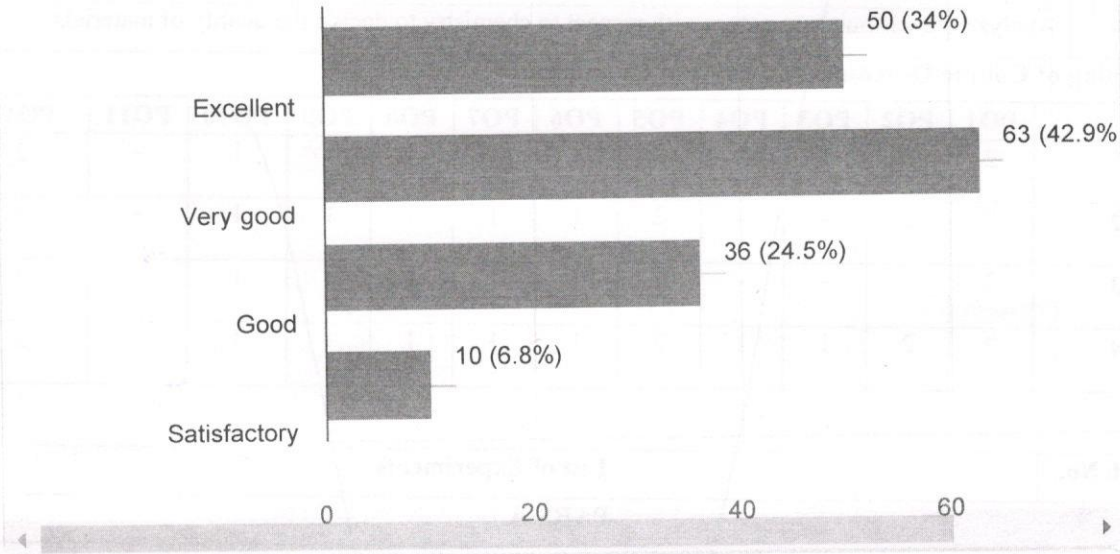
Quality of the course content



Course outcomes are well defined?

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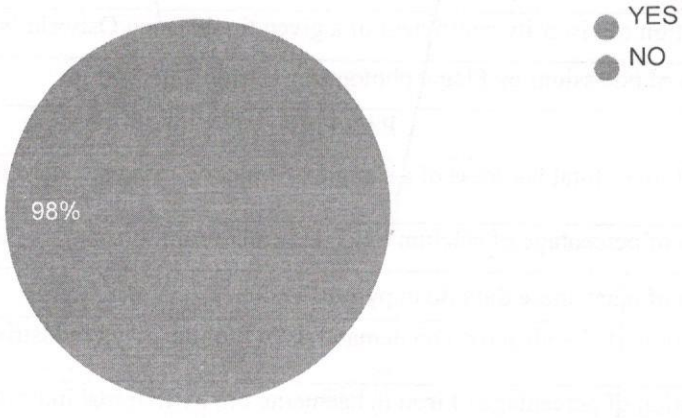

The course is designed as per the industry needs?

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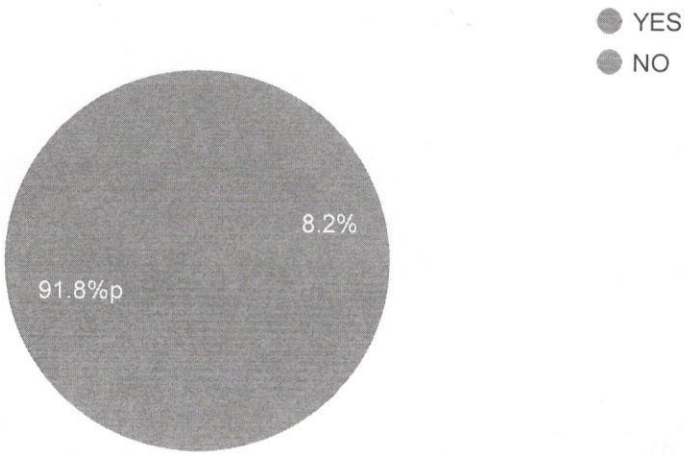

How well is the course plan and assessment plan of the course designed?

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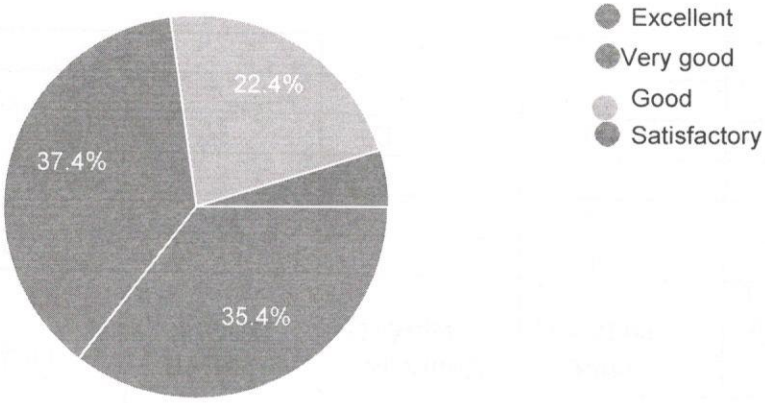
responses



Lectures are well organised and presented in a reasonable pace

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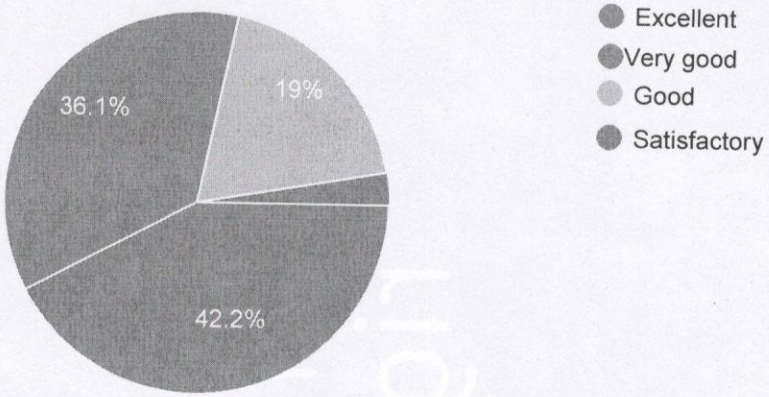
responses



Whether the teaching aids used by the chemistry faculty (PPTs, videos,Activity based, chalk and talk) are helping for learning the course

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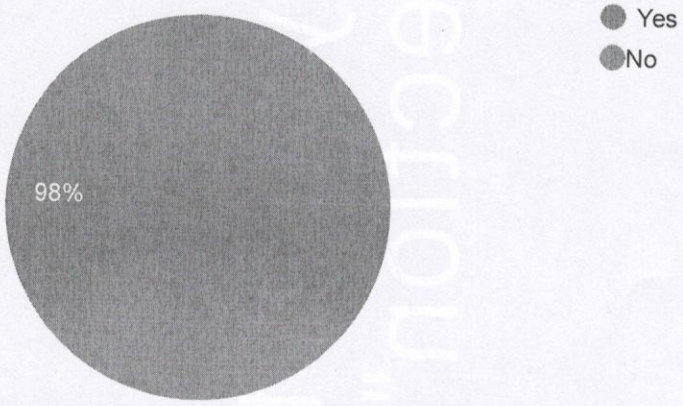
responses



(CO1) Explain the chemistry behind engineering materials in various devices which are in the service of mankind.

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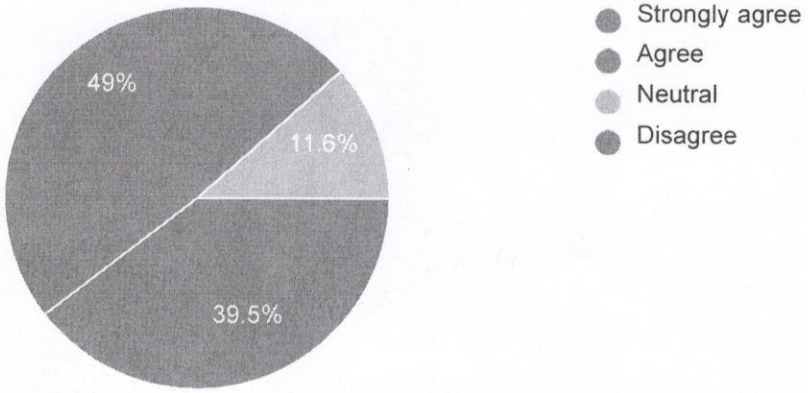
responses



(CO2) Analyze the existing problems and find the solutions with respect to engineering materials, energyproduction and other natural resources.

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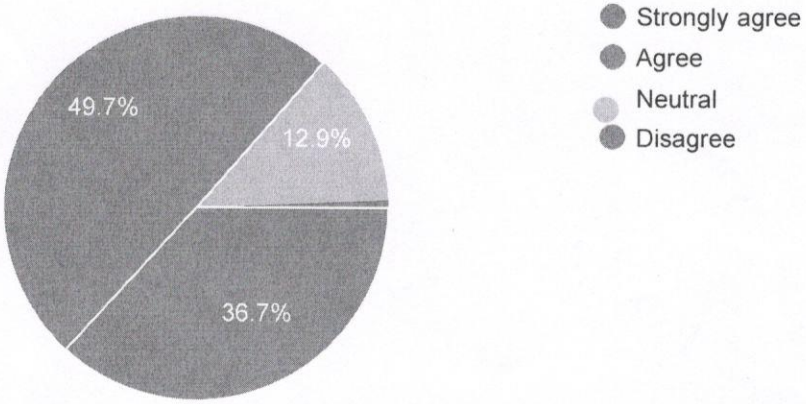
responses



(CO3) Evaluate the various parameters that decide the performance and usage of materials and devices.

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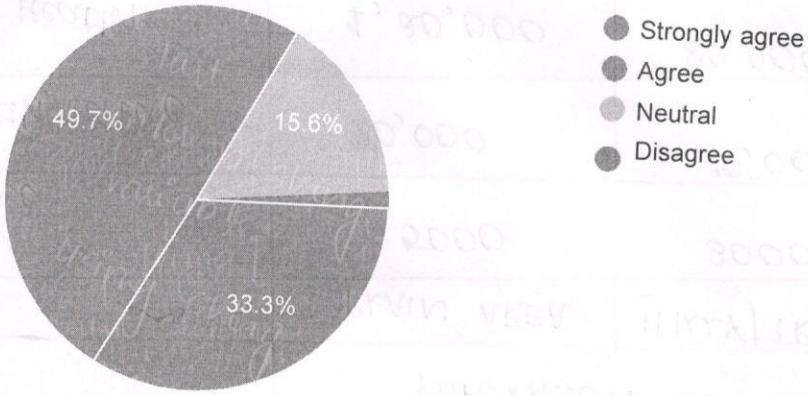
responses



(CO4) Acquire technical competence in industries with respect to engineering chemistry.

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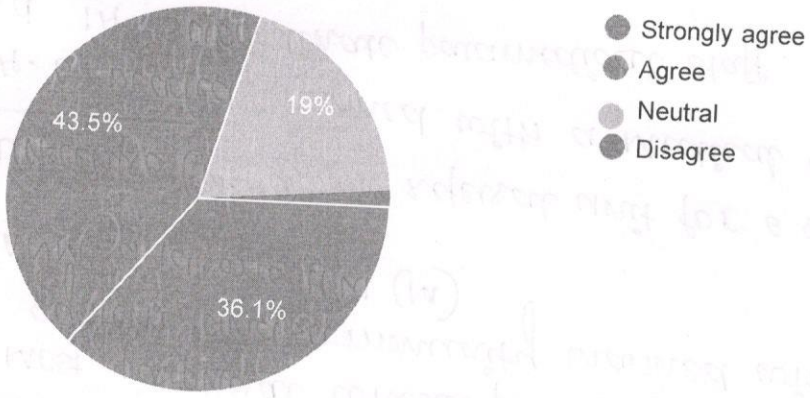

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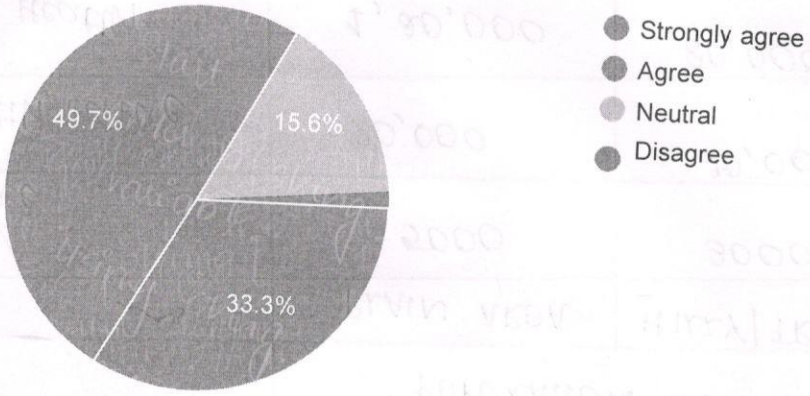
responses



(CO4) Acquire technical competence in industries with respect to engineering chemistry.

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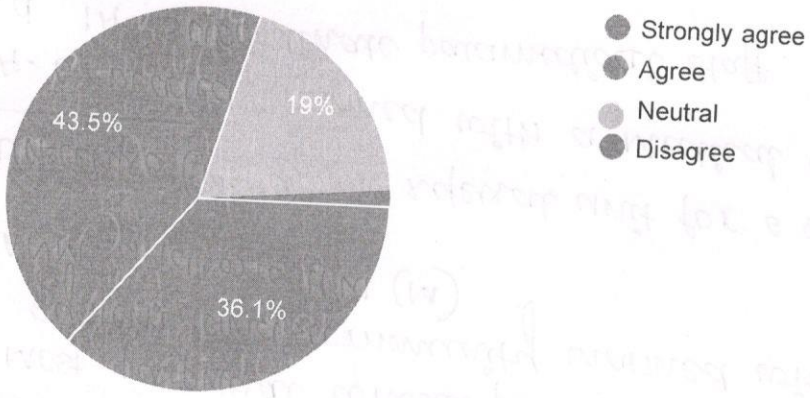
responses



(CO5) Implement the alternative technologies and methods to exploit resources in an efficient way.

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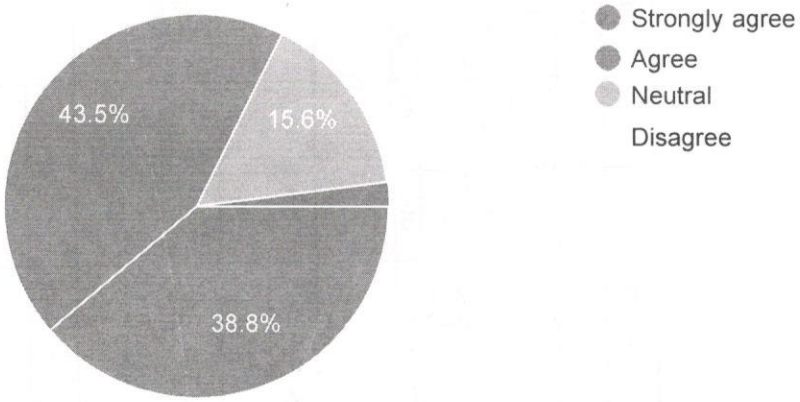
responses



(CO6) Use advanced engineering materials in emerging trends.

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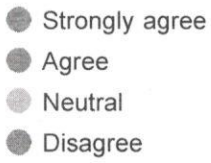
responses



Google Forms

List the concepts that you have found difficult to grasp

Polymers
The electrochemistry
Polymer Reactions
Classification of super capacitors
Every was from easy to moderate level
Super capacitor (chemistry),. Formation of iron rust reaction,.Module 3
Metal finishing, Corrosion control techniques the way of
teaching is easy to understand
Organic Chemistry
Cells
UV spectroscopy,
Optical property of nanomaterial which includes the concept of surfaceplasmon
Knocking in Ic engine,flame photometry in chemistry and Arrays and functionsin
Nanomaterials
Zinc oxide nanoparticles formation,CuO nanoparticles formation
Diagramatic questions
Nanomaterials Chemistry
Chemical equations of all modules

--

List the concepts that should be removed from the syllabus

Environmental chemistry
Polymers
Everything is intact and it should not be altered.
All concepts are necessary and usefulModule-2
Module 1 can be reduced.
Polymer
Few topics from module 4n polymers many reactions are there only ,if only main required reactions should be there then it's easy
Non-renewable and renewable energy SourcesEverything is fine
Nothing i guess because everything seems important
Pyrolisis
Platinum electrode, standard hydrogen electrode, types of corrosionconcepts
Refining
Renewable and non renewable sources, loads Renewable and non
renewable sources ,mod 1 of BE
Module 4 environmental studies excluding all important processes used inday to day life
Flame photometry , SOFC
all the theoritical basis which are not usefull for practical knowledge
Physical chemistry parts and environmental chemistry
Cuo nanoparticles formation, advantages of nanoparticles,top-down andbottom up methods of synthesis
Chemistry - Pollution
Nanomaterilas
Flame photometry

List the new inclusions in the syllabus that you recommended

Formation of gases
More about metals
Explain the chemical reaction along with writing
Chemical kinematics
Introduction to required topics in further semester
Dye concept, polymers preparation
More of inorganic chemistry should also be there if neededMore branch related subjects
Nothing in in particular is needed.....but extra concepts can give extra knowledge.
Adding numerical based concepts Thermodynamics and Chemical Equilibrium
Surface chemistry
organic chemistry
Which helps in our further studies and day to day processes used in our lifeNo
Application part of nanomaterials

What other aids would facilitate your learning

Practical explanation
Smart board
Surprise test apart from internals, quizzes.More practical way of teaching
Labs
The use of computers like smart boards to enhance learningNice
3D models and visual representation
Explanation of chemistry equations
Practical Learning
Offline teaching would be better & online materials including videoPDF
Group projects
making the concept clear by solving the questions or by exaggerating thetheory by understandable examples
One on one interaction
More use of Video lectures for explaining concepts which are difficult tounderstand on board.
Some storage devices in electronics and logic gates, Micro processers andmicro controler.etc
Showing the things practically.More revision
Working videos for all processes and phenomenon for better understandingGood Educational
Number of reactions should increase and mechanism of reactions and stuffshould be added which would bring more interest
Faculty teaching is good More practical knowledgeSmart boards

NEW HORIZON COLLEGE OF ENGINEERING, BENGALURU

Autonomous College affiliated to VTU, Accredited by NAAC with 'A' grade, Accredited by NBA

COURSE EXIT SURVEY

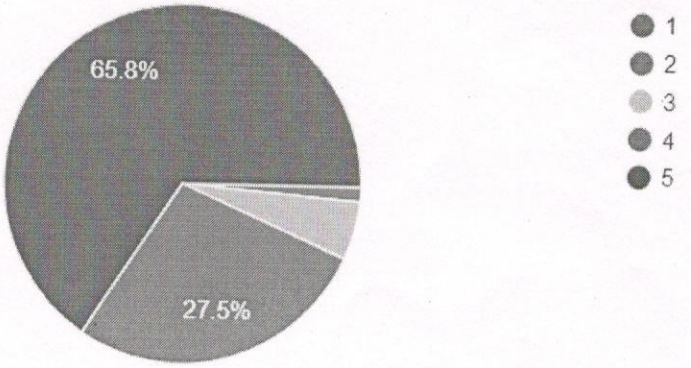
Course Name: APPLIED MATHEMATICS-I **Course Code: 21MAT11A**

The following points given in the questioners denotes

1. **Needs Improvement**
2. **Satisfactory**
3. **Moderate**
4. **Good**
5. **Very good**

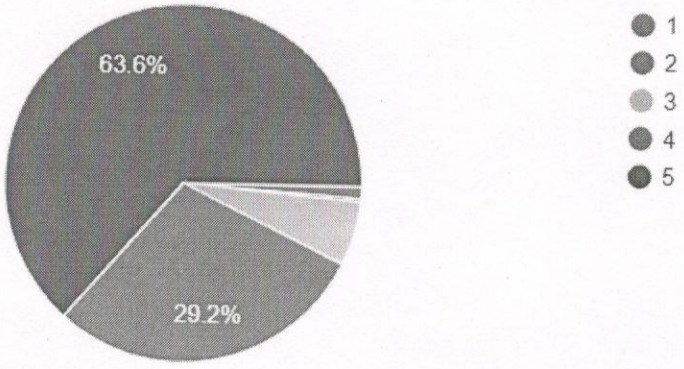
Overall course content quality

363 responses



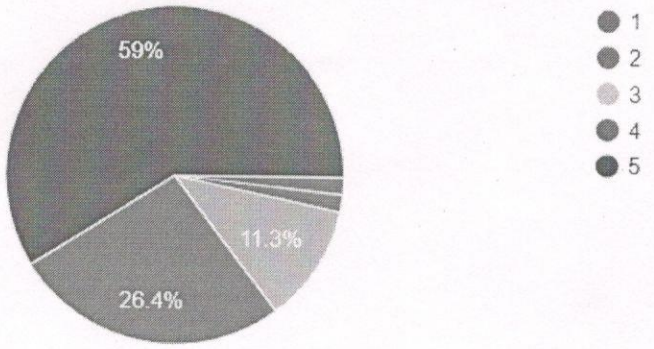
Course Outcomes (CO's) are well defined

363 responses



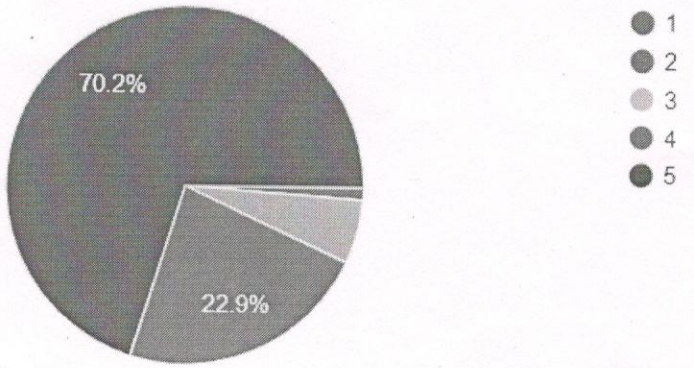
The course is designed as per industry needs

363 responses



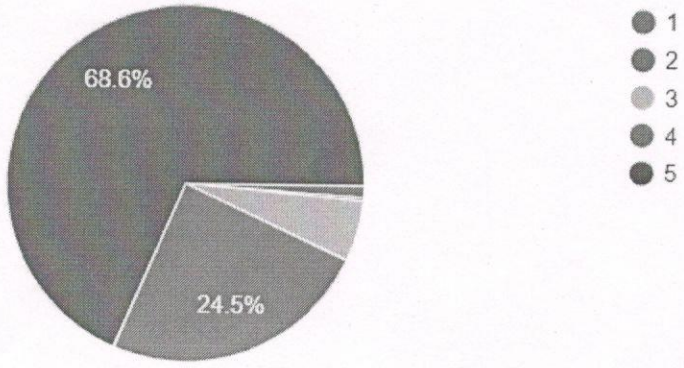
Lectures are well adoptable, organized and presented in a reasonable pace

363 responses



The assessment methods adopted (test, assignment and quiz) for the course are appropriate.

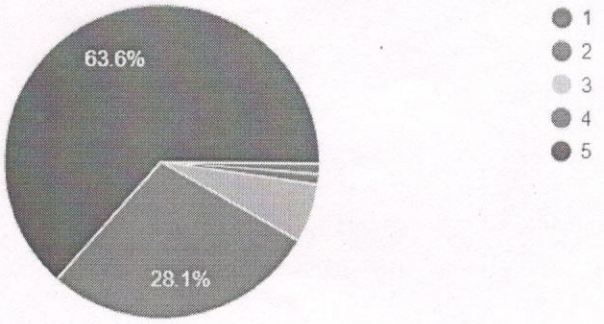
363 responses



On completion of the Applied Mathematics-II (21MAT21A), I am able to:

Interpret the linear differential equations and their applications.

363 responses



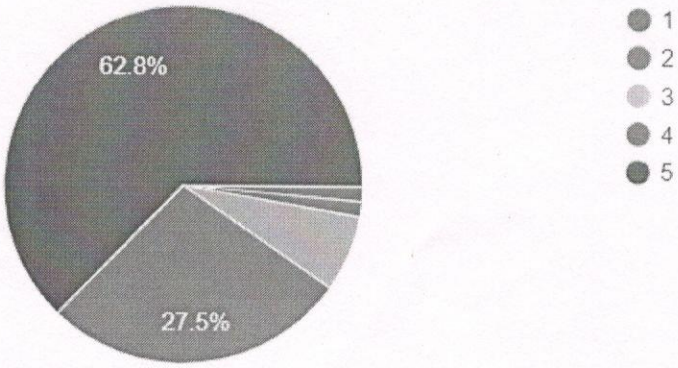
Solve initial and boundary value problems by using Laplace transform and also find the

response of the system.

363 responses

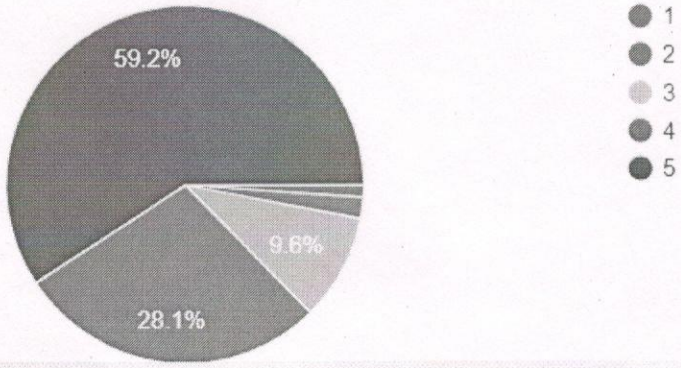
Analyze the convergence and divergence of an infinite series.

363 responses



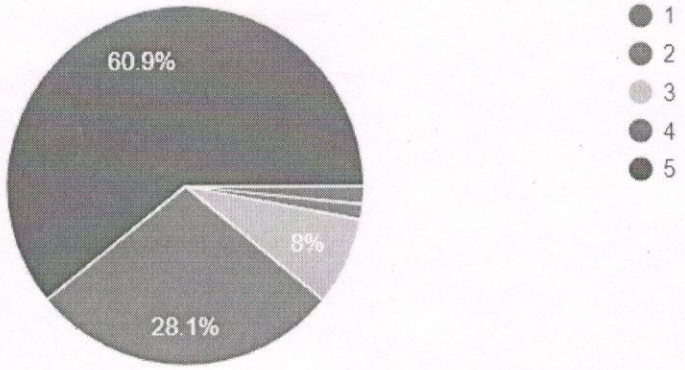
Justify the concept of vectors as a tool for solving engineering problems.

363 responses



Formulate real world problems using partial differential equations

363 responses



NEW HORIZON COLLEGE OF ENGINEERING, BENGALURU

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COURSE EXIT SURVEY

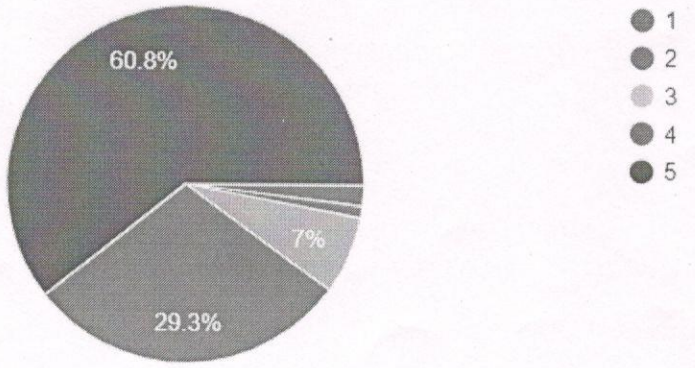
Course Name: APPLIED MATHEMATICS-II **Course Code: 21MAT21A**

The following points given in the questioners denotes

1. **Needs Improvement**
2. **Satisfactory**
3. **Moderate**
4. **Good**
5. **Very good**

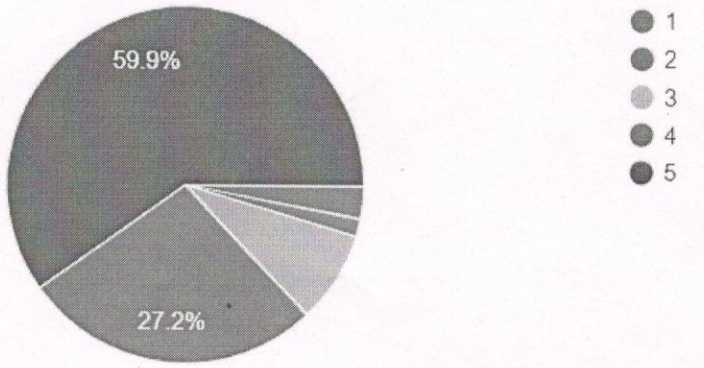
Overall course content quality

372 responses



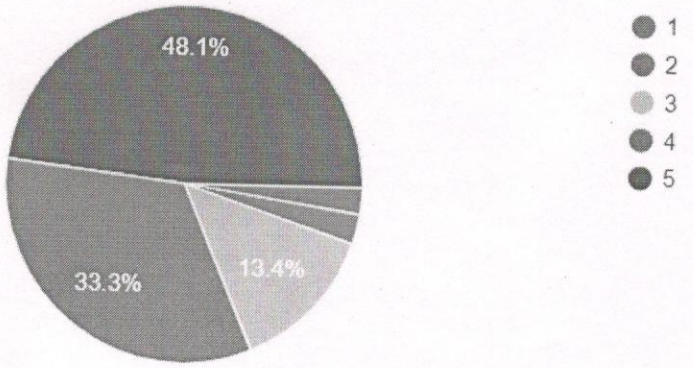
Course Outcomes (CO's) are well defined

372 responses



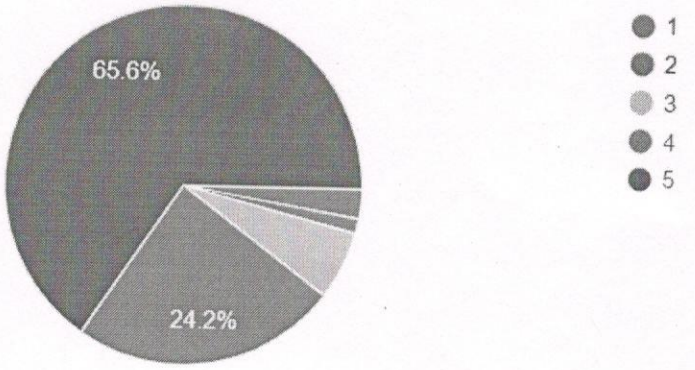
The course is designed as per industry needs

372 responses



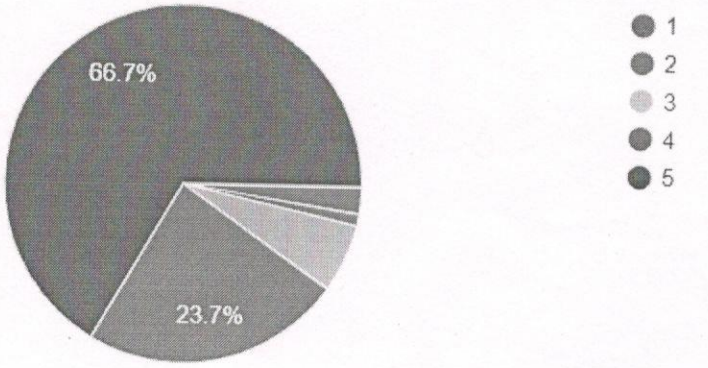
Lectures are well adoptable, organized and presented in a reasonable pace

372 responses



The assessment methods adopted (test, assignment and quiz) for the course are appropriate.

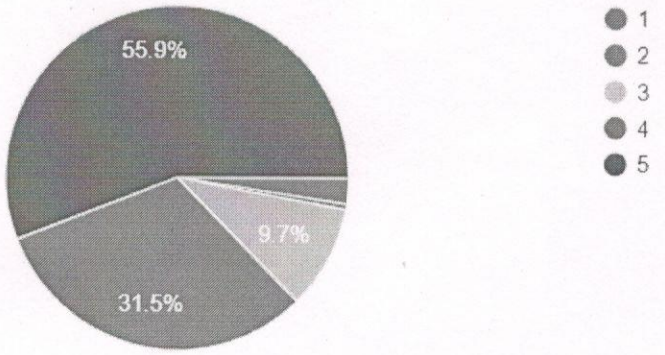
372 responses



On completion of the Applied Mathematics-I (21MAT11A), I am able to:

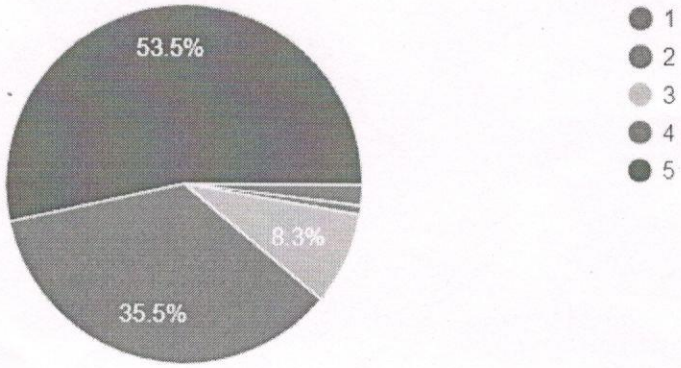
Know the principles of engineering mathematics through calculus

372 responses



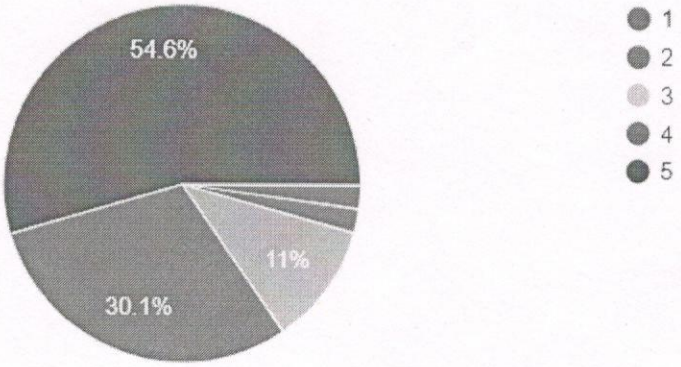
Calculate the extreme values of a function of two variables

372 responses



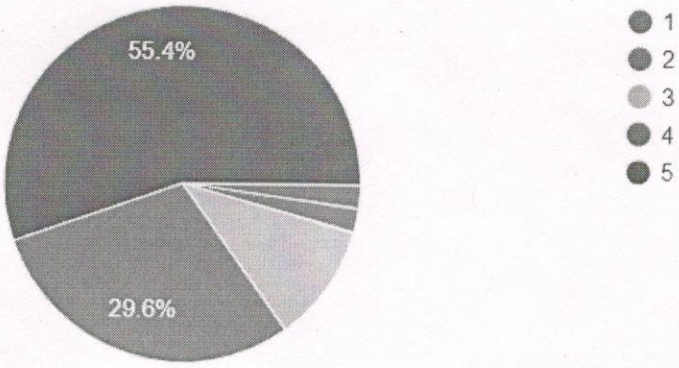
Apply the concepts of integration of functions of two/three variables over a region

372 responses



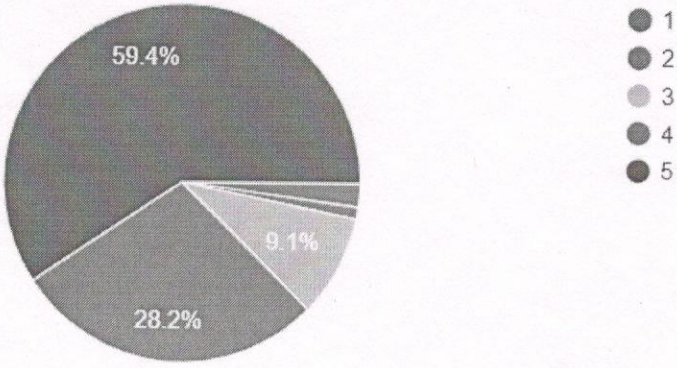
Develop the ability to construct mathematical models involving differential equations and interpret their solutions physically

372 responses



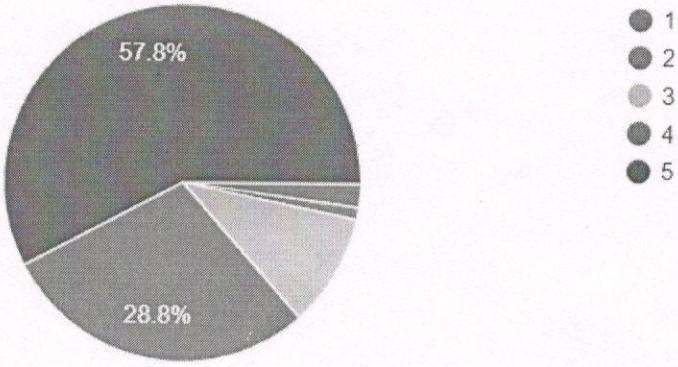
Apply ideas from linear algebra in solving systems of linear equations

372 responses



Reduce square matrices to diagonal forms.

372 responses

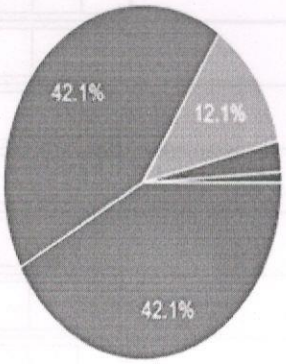


Student's Satisfaction Survey AY 2021-2022

URL:

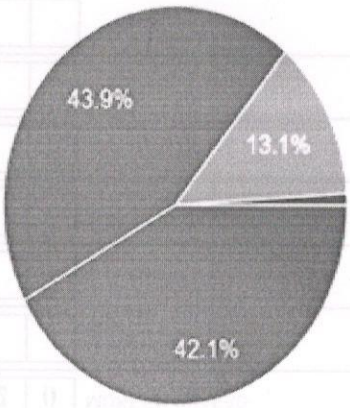
https://docs.google.com/forms/d/e/1FAIpQLSeQ79ccFhxeN3CM1mlwiSm5Nd9oft7MQykGro6oOgFeSLeZxw/viewform?usp=sf_link

As a BE 1st year student in Autonomy, how satisfied you feel at Department of Applied Sciences in NHCE?



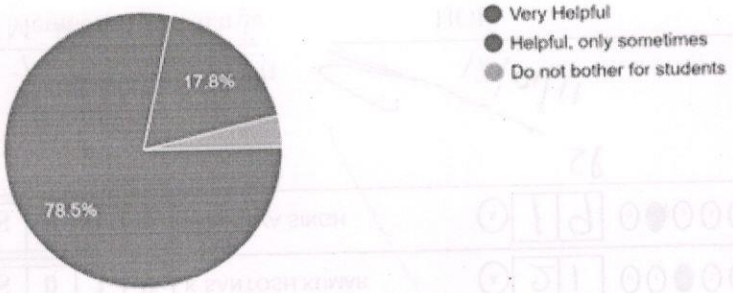
- Highly Satisfied
- Moderately Satisfied
- Satisfied, but often taxing
- Not satisfies
- I feel that the students those who've taken a computer related branch should be more inclined towards the computer related subjects. This sem we don't have any programming subject. If we had one, then it would be better .

How is the CIE Schedule in 1st/2nd Sem Calendar of events?

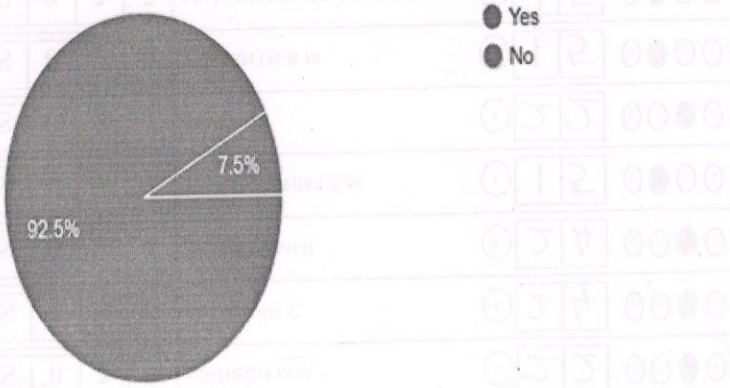


- Worth attempting
- Good, but hectic
- Overloaded
- Tough

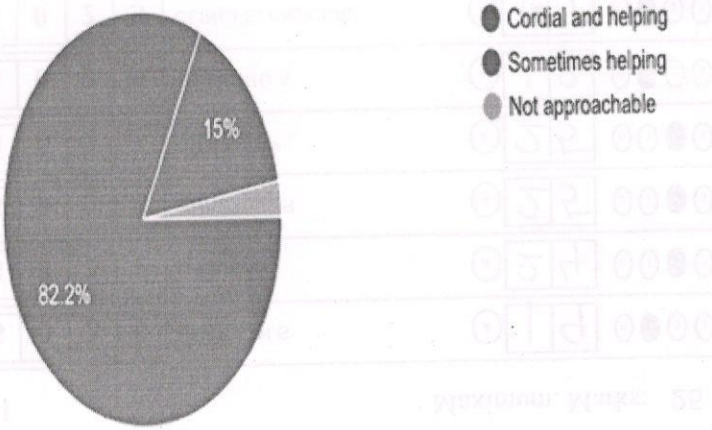
How helpful and guiding are Lab Instructors?



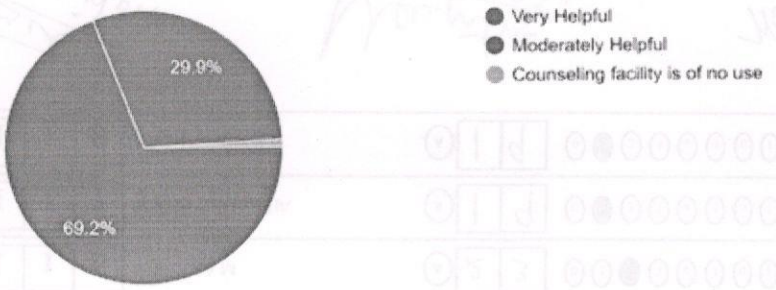
Are you happy with infrastructure(classrooms, Lab facilities):



How is the support team at Department of Applied Sciences?



How useful and approachable are Counselors in Departmen of Applied Sciemces ?



Any Suggestions for Department of Applied Sciences to improve further in meeting its goals:

Smart boards in all classes

All are good only

no suggestions

Reduce the syllabus

please do check the lights and fans are working in class & do check the blockage in restroom

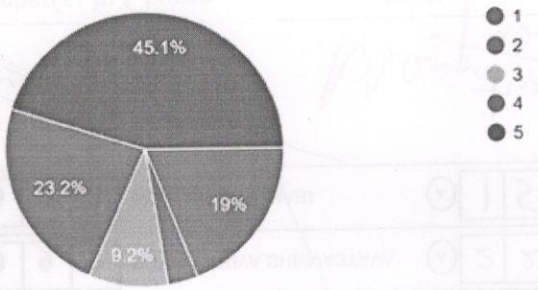
Subjects having very low credit should either be removed or should be of zero credits.

Life skills should be given more importance as most of us take it lightly.

They are very helpful

Fewer classes and more free timings and lesser attendance requirements.

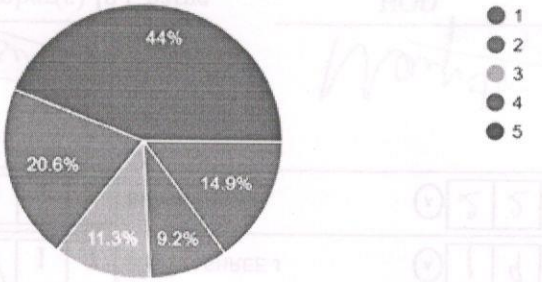
The assessment methods adopted (test, assignment and quiz) for the course are appropriate.



Further suggestions to improve physics course if any (mention NA if no suggestions)

Nothing
Good
A
All the best
Real and practical experiments would do better (ex-working of appliances, the physical processes, etc).
Can use PPT for demonstration
No suggestions
no suggestions at all the entire semester was perfectly organised and made the sem absolutely easy and fun for the students
Please improve students and teacher interaction
good
Well and good
Excellent
Add any one programming language
The classes were perfect
Nothing everything was. Ok

Develop skills required for team work, technical communication and discussions.



Action taken report

Engineering Physics and Engineering Physics Lab

1. To meet the growing demands of the industry with respect deep knowledge about the engineering concepts stream specific syllabus has been introduced.
2. To be in coherence with the current industry need with growing demands in IT sectors more content about Quantum computational concepts are incorporated as a separate Module 5 along with superconductivity concepts which is the key for quantum computer development.
3. For mechanical engineering streams to cater to the expertise required with respect materials and its research instrumentation physics is included in Module 5.
4. To inculcate research approach in student's MOOC courses related with introduction to research is made mandatory as part of alternative assessment.

Revathi

H.O.D. - PHYSICS
NEW HORIZON COLLEGE OF ENGINEERING
BANGALORE

NEW HORIZON COLLEGE OF ENGINEERING

DEPARTMENT OF APPLIED SCIENCES - CHEMISTRY

Action taken report based on stakeholders' feedback

Based on the stakeholders' feedback and VTU instructions following changes were made in the Chemistry syllabus. Which was discussed in the BOS meeting and implemented in the curriculum with the approval of Academic counsel.

- Chemistry theory and lab were integrated and the total number of credits for the course remain **4**
- Name of the course has been changed as **Applied Chemistry for Engineers**.
- Lab SEE has been cancelled. Lab performance is evaluated only through CIE, which includes regular lab assessment and one lab internal test. Total Lab CIE marks allocated is **20 marks**
- CIE theory is for **30 marks**, which includes three internal assessment tests conducted each for 25 marks and average is taken. Assignment or Quiz is given for **5 marks.**
- The course syllabus has been made branch specific by dividing into three streams
  - CS stream for CSE, ISE, CE, DS and AIML branches
  - EEE stream for EEE and ECE branches
  - ME stream for ME branch.
- SEE is conducted for 100 marks and scale down to 50 in theory, which includes 20% lab related questions.

Module 1

All energy related topics were brought into first module.

Module 2

Gold plating is removed and Chromium plating is included.

Module 3

Study of Nanomaterials is included. A new topic **"Display systems"** has been introduced.

Module 4

Topic "Boiler problems" was removed.

Module 5

New topics

- **Materials for memory** and **E- waste management** were introduced for **CS stream.**
- **Chemistry of electronic materials and sensors** were introduced to **EEE stream.**
- **Phase rule and macromolecules for Engineering Applications** were introduced to **ME stream**

- **Application of software tools and synthesis of nanomaterials** were introduced as demonstration experiments in lab.
- **Open ended experiments have been introduced in lab.**

H.O.D. - CHEMISTRY

Action taken report in Mathematics:

1. **Applied Mathematics-I:**
   Retained the syllabus with no changes.

2. **Applied Mathematics-II:**
   Retained the syllabus with no changes.

3. **Applied Mathematics-III (CIV & MEE branches) in third semester:**

Module 1: Lagrange's inverse interpolation formula for unequal intervals added.

Module 3: Brachistochrone problem is included in Applications part.

Module 2, Module 4 and Module 5: No change, proposed syllabus retained.

4. **Mathematical Foundation for Computing Sciences (AIM, CEE, CSE & ISE branches) in third semester:**

Module 1: Lagrange's inverse interpolation formula for unequal intervals added.

Module 2: Taylor's series method added.

Module 3: No change, proposed syllabus retained.

Module 4: Moment generating function added.

Module 5: Inferences for variance and proportion added.

5. **Applied Mathematics-III (ECE &EEE branches) in third semester:**

Module 1: Lagrange's inverse interpolation formula for unequal intervals added.

Module 2, Module 3, Module 4 and Module 5: No change, proposed syllabus retained.

6. **Applied Mathematics-IV (CIV & MEE branches):**

Module 1: Taylor's series method added.

Module 4: Moment generating function added.

Module 5: Inferences for variance and proportionadded.

Module 2 and Module 3: No change, proposed syllabus retained.

7. **Discrete Mathematics and Graph Theory (CEE, CSE & ISE branches):**

Module 1 to Module 5: No change, proposed syllabus retained.

8. **Applied Mathematics-IV (ECE & EEE branches):**

Module 1: Taylor's series method added.

Module 4: Moment generating function added.

Module 5: Inferences for variance and proportion added.

Module 2 and Module 3: No change, proposed syllabus retained.

9. Discrete Mathematics and Statistics (AIM branch):

Module 1: Discrete mathematics 1:
Algorithms, Induction and Recursion: Algorithms–Definition, The Growth of Functions definition with simple examples.Induction and Recursion - Mathematical Induction, Well-Ordering principle, Recursive Definitions and problems, Recursive Algorithms, Program Correctness.
Combinatorics: Line arrangements and some classical problems,posets and Mobius inversion.

Module 2: Discrete mathematics 2:
Greatest Common Divisors and Prime Factorization:Greatest common divisors - The Euclidean algorithm, The fundamental theorem of arithmetic, Factorization of integers and the Fermat numbers.
Congruences: Introduction to congruences, Linear congruences, Systems of linear congruences.

Module 3: Stem & Leaf displaysadded.

Module 4and Module 5: No change, proposed syllabus retained.

10. Basic Applied Mathematics-I (for third semester Lateral Entry Students-Common to all branches):

Module 1 to Module 5: No change, proposed syllabus retained.

11. Basic Applied Mathematics-II (for fourth semester Lateral Entry Students-Common to all branches):

Module 1 to Module 5: No change, proposed syllabus retained.

12. Computational Mathematics (PG: I semester MCA):

Module 1 to Module 5: No change, proposed syllabus retained.

13. Advanced Mathematics (PG: I semester MTech-MMD):

Module 1 to Module 5: No change, proposed syllabus retained.

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