CHRIST (Deemed to be University)
Department of Mathematics

Feedback on curriculum : Action taken report
2016-2017

Highlights of the Comments received through the feedback on Curriculum:

1. The teaching hours are too long. Too many CIA and project work
2. It would be great if we had the option of Maths Honours or at least study only Maths in our third year.
3. Teach some pure mathematics subjects, like linear algebra

Action Taken:

As per the feedback received from students, the following courses were introduced as electives for all five combinations.

- MAT632 - FOURIER SERIES & INTEGRAL TRANSFORMS
- MAT633 - OPERATIONS RESEARCH
- MAT201/MTH201 - INTRODUCTION TO MATHEMATICAL PACKAGES

Note: The requests that are not considered this year will be considered during the curriculum revision in the upcoming academic years.

HEAD
Department of Mathematics,
CHRIST (Deemed to be University)
BENGALURU-560 029

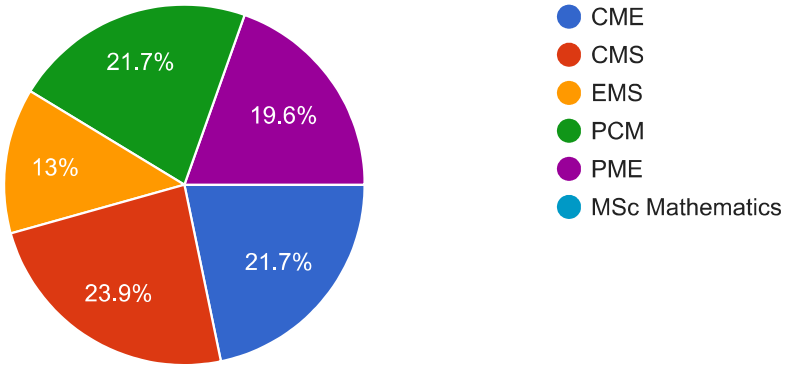
Student Feedback Survey on Curriculum

138 responses

Publish analytics

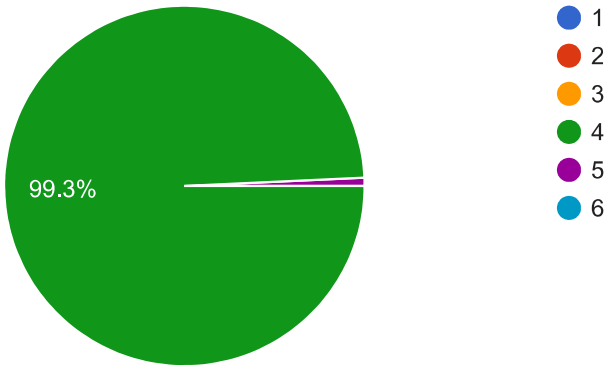
My Programme

138 responses



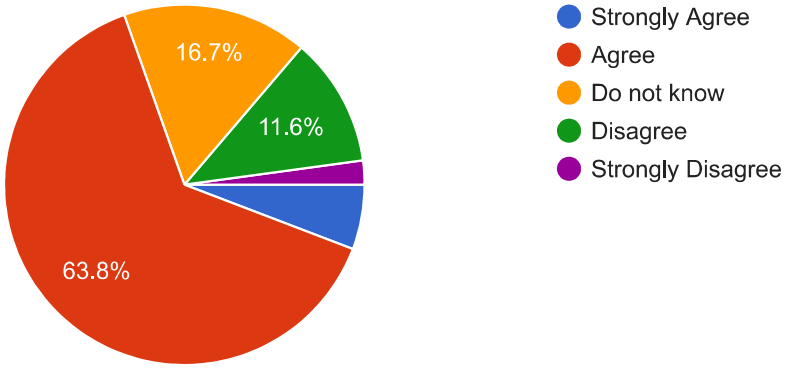
Semester

138 responses



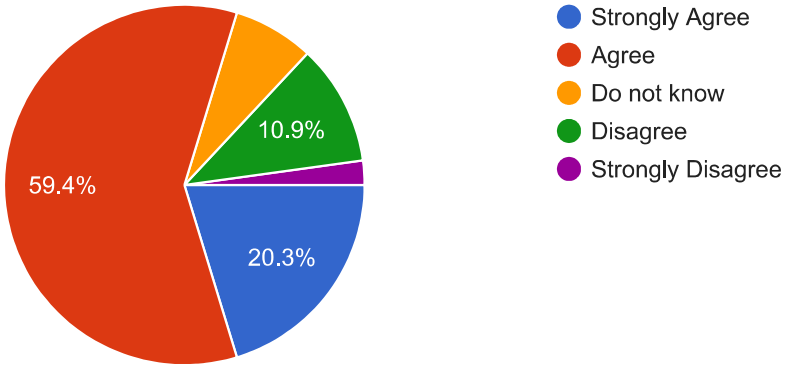
The curriculum provides scope for higher studies.

138 responses



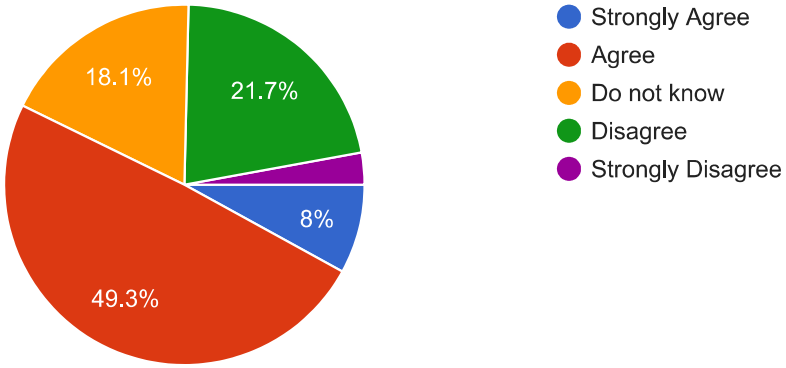
The total number of hours allocated for the entire Mathematics curriculum in the programme is sufficient.

138 responses



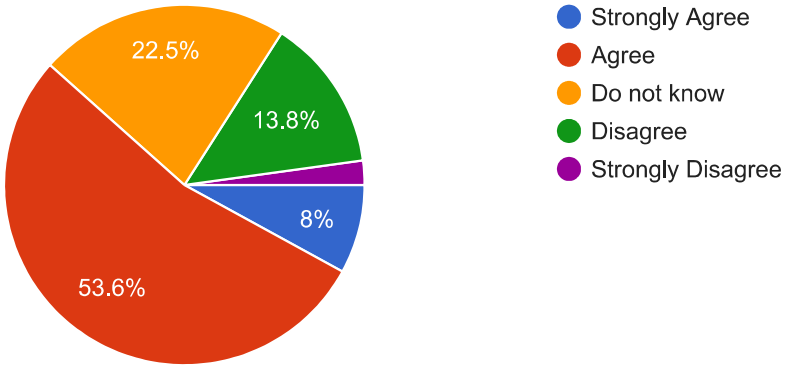
The course objectives meet my expectations.

138 responses



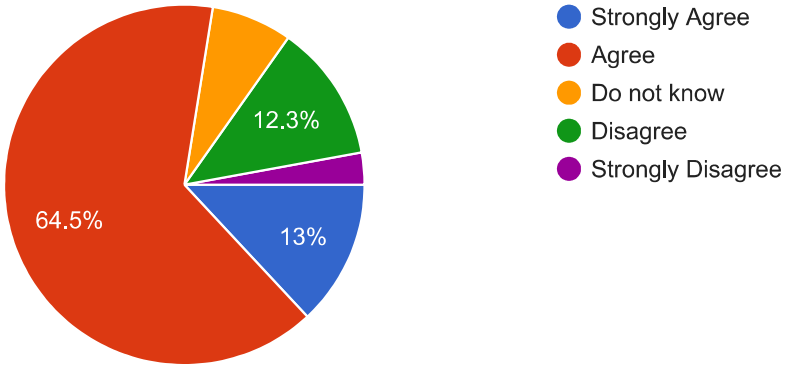
The specified learning outcomes rightly summarize the the scope of the course.

138 responses



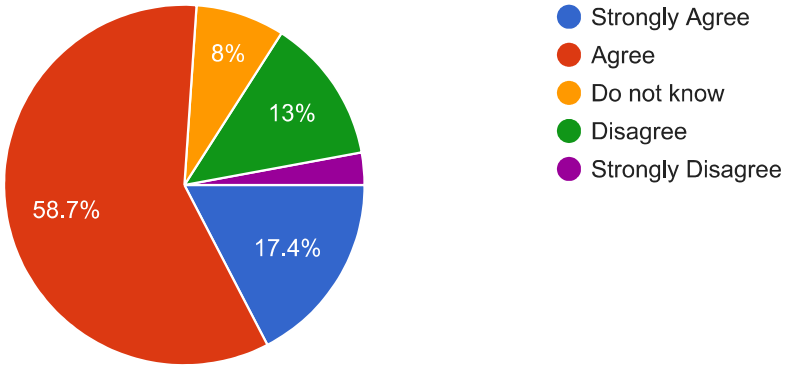
The number of hours allocated for each unit of the course is sufficient.

138 responses



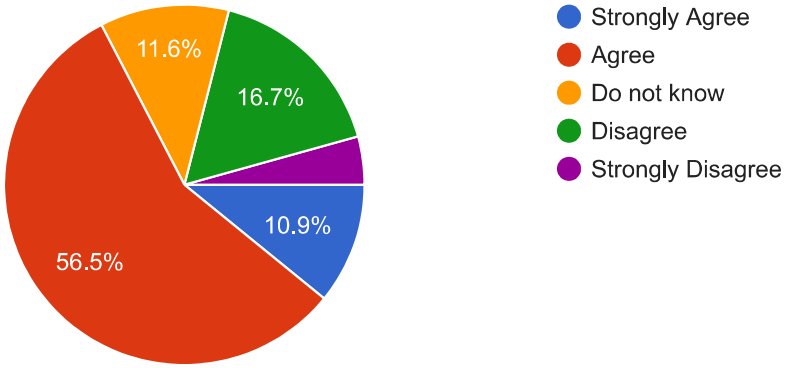
The learning resources provided cover all the topics specified in the course.

138 responses



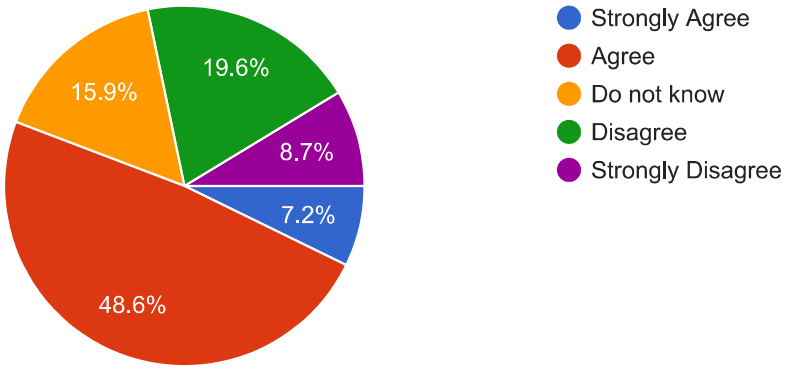
The assessment criteria meet the learning objectives of the courses.

138 responses



The assessment criteria perfectly measure my learning.

138 responses



General Comments; if any:

23 responses

There is not enough focus on a conceptual understanding of the topic. When I brought this up, the response was an assertion the rest of the class is already struggling with the exam related portions and that introducing more was the solution. I believe this exam oriented approach is the reason for the struggle. I don't believe that an appropriate response to this is to impose more restrictions on student. None of the students really understand why they are learning what they are, and that this is the root of the lack of motivation. I believe a good response would be efforts to show the beauty of math and applications of the topics we are currently learning. If extra time is required for this, my suggestion is that it be optional so that everyone can learn as per their objectives. In response to certain faculty without any conceptual understanding I do not know the appropriate response, but I would like to point out that at least one exists and taught me this semester.

The CIAs (online course/model) are very hectic and unreasonable, and is not helpful.

Lack of interest for CME class from few teachers.

Good

Minutes of 9th Meeting of the Board of Studies of the Department of Mathematics held on 16-02-2016 at 10:00 am in Room 119, IV Block, Christ University.

In the Chair: Dr. T V Joseph, Head of Department.

Members Present:
Details of the members present are given in the attendance list.

Declaration of Quorum and Calling the Meeting to Order
The Chairman declared the validity of the quorum and called the Meeting to Order.

Matters on the Agenda:

1. **To confirm the Minutes of the previous meeting held on 30-04-2015**
   The minutes of the previous meeting of the Board of Studies was duly reviewed and approved by the meeting. It was noted that there were no matters arising out of the Minutes.

2. **To consider and recommend the changes in curriculum for B.Sc. Programmes:**
   B.Sc. Mathematics syllabus has been restructured completely to favour Choice Based Credit System (CBCS) and the new structure is given below:

Sem	Name of the course	Theory/ Practical **	Type*	Hr/wk	Credits	CIA Marks	ESE Marks	Total Marks	Duration of Exam	Remarks
I	MAT131-Differential Calculus	T	DSC	4	4	50	50	100	3	
	MAT151-Differential Calculus Using MAXIMA	P	DSC	2+2	2	50	----	50	---	
II	MAT-231-Differential Equations	T	DSC	4	4	50	50	100	3	
	MAT-251-Differential Equations Using MAXIMA	P	DSC	2+2	2	50	---	50	--	
III	MAT331-Real Analysis	T	DSC	4	4	50	50	100	3	
	MAT351-Real Analysis using MAXIMA	P	DSC	2+2	2	50	----	50	---	
IV	MAT431-Algebra	T	DSC	4	4	50	50	100	3	
	MAT451-Algebra using Scilab	P	DSC	2+2	2	50	----	50	---	
V	MAT531- Numerical Methods	T	DSE	3	3	50	50	100	3	MAT 531 and MAT551 are Mandatory, where as Students can choose any one of MAT532, 533, 534 with its practicals
	MAT551--Numerical Methods using Scilab	P	DSE	2+2	2	50	---	50	---	
	MAT532-Linear Algebra	T	DSE	3	3	50	50	100	3	
	MAT552-Linear Algebra using Scilab	P	DSE	2+2	2	50	---	50	---	
	MAT533-Mechanics	T	DSE	3	3	50	50	100	3	
	MAT553-Mechanics using Scilab	P	DSE	2+2	2	50	---	50	---	
	MAT534-Computational and Applied Mathematics	T	DSE	3	3	50	50	100	3	
	MAT554-Computational and Applied Mathematics using Scilab	P	DSE	2+2	2	50	---	50	---	
VI	MAT631-Complex Analysis	T	DSE	3	3	50	50	100	3	MAT 631 and MAT651 are Mandatory, where as Students can choose any one of MAT632, 633, 634 with its practicals
	MAT651-Complex Analysis using MAXIMA	P	DSE	2+2	2	50	---	50	---	
	MAT632-Operations Research	T	DSE	3	3	50	50	100	3	
	MAT652-Operations Research using Scilab	P	DSE	2+2	2	50	---	50	---	
	MAT633-Integral Transforms	T	DSE	3	3	50	50	100	3	
	MAT653-Integral Transforms using MAXIMA and Scilab	P	DSE	2+2	2	50	---	50	---	
	MAT654-Project	Both	DSE	5	5	100	---	100	---	

*: DSC – Discipline specific Core, DSE – Discipline Specific Elective ** : T-Theory, P-Practical

The above mentioned structure was accepted by the members of BOS. The syllabi for the courses (CBCS) MAT131, MAT151, MAT231 and MAT251 are presented to the members of BOS and the following suggestions given were incorporated:

MAT131: Uniform Continuity is explicitly mentioned in Unit 1.

The following are the suggestions given to due consideration while framing syllabus for the second year and third year under CBCS.

1. MAT534: Course can be given based on algorithms and the textbooks that can be incorporated are

   "E. W. Chenny and D.R.Kincad, *Numerical Mathematics and Computing*, 7th ed., Cengage Learning, 2012."

   "R. L. Burden and J. D. Faires, Numerical Analysis, 9th ed., Cengage Learning, 2010."
2. Recommendations were given to include "Integral calculus and vector calculus" in the syllabus. This will be considered subject to permission given by the University for providing the skill enhancement courses under CBCS.

The second year and third year syllabi were already approved in the 8th BOS held on 30-04-2015. But minor changes were made, as per the suggestion given by the experts. The following are the changes:

1. MAT631: An additional textbook is added to Recommended Reading: "University of Bombay, Leadership Project Committee, *Textbook of Mathematical Analysis*, New Delhi : Tata McGraw-Hill ; New Delhi, 2008".

2. For all courses on Scilab, the textbook "Gilberto Urroz, *Numerical and Statistical Methods with SCILAB for Science and Engineering*, BookSurge Publishing, 2001" is recommended and is also incorporated.

The Board approved the changes after considering the validity of the reasons for the suggested changes.

3. **Curriculum for MSc and MPhil programmes** were approved in the 8th BOS held on 30-04-2015. But, MTH232-Differential Geometry is replaced with MTH232-Complex Analysis for the upcoming 2016-2017 (joining) batch. As per the recommendations of the subject experts, the topics on MTH233-Advanced algebra were revised with Unit I on Advanced Group Theory, Unit II on Rings, Unit III on Fields and Unit IV on Galois Theory. The second year syllabi were retained with minor changes and the changes are mentioned below:

MTH131:

1. Text Books added to Recommended Reading:
   S. Ponnusamy, *Foundations of Mathematical Analysis, illustrated ed., Birkhauser, 2012.*
   S.C. Malik and S. Arora, Mathematics Analysis, 4thed., New Age International, 2012.

MTH133:

1. Topics added – Unit I:Legendre, Bessel's, Chebeshev's ineq.; Unit II: solution of irregular singular point; Unit III: Formation of PDE, solution of first and second order PDE,
2. Text book added to Essential Reading:
   S.J.Farlow, *An Introduction to Differential Equations and their Applications*,reprint, Dover Publications Inc., 2012.

3. Textbooks added to Recommended Reading:
   E. A. Coddington, *Introduction to ordinary differential equations*, Reprint: McGraw Hill, 2006.
   G. F. Simmons, *Differential equations with applications and historical notes*, Tata McGraw Hill, 2003.
   Tyn Myint-U and L. Debnath, *Linear Partial Differential Equations*, Boston: Birkhauser, 2007.

MTH234:

Text book added to Recommended Reading:

W.R.Schowalter, *Mechanics of Non-Newtonian Fluids*, 1st ed., Pergamon Press, 1978.

MTH441:

Topics added: UNIT 1 – Galerkian Technique;

MTH433:

1. Unit 1 – Limitations of Fourier Series and Transforms needed for Wavelet Theory,
2. Text books added to Recommended Reading :
   Abul Hasan Siddiqi, *Applied Functional Analysis: Numerical Methods*, Wavelet Methods, and Image Processing, CRC Press, 2003.

MTH444

1. Text books added to Essential Reading:
   A.C. Fowler, *Mathematical Models in Applied Sciences*, Cambridge University Press, 1997.
   Stanely J. Farlow, *Partial Differential Equations for Scientists and Engineers*, Dover.
2. Textbooks added to Recommended Reading:
   M. Braun, C.S. Coleman and D. A. Drew, *Differential equation Models*, 1994.
   J.N.Kapur, *Mathematical Modelling*, Springer, 2005.
   J.N.Kapur, *Mathematical Models in Biology and Medicine*, East-West Press, New Delhi, 1981

MTH446

1. Textbooks added to Essential Reading
   J. Houghton, *A Physics of Atmospheres*, 3rd ed., Cambridge University Press, 2002.
2. Textbooks added to Recommended Reading
   Joseph Pedlosky, *Geophysical fluid dynamics*, Springer-Verlag, 1979.

The Board approved the above mentioned changes after considering the validity of the reasons for the suggested changes.

4. **To review the Results of the ESE April and October 2015 for BSc, MSc and MPhil Programmes**
   The Result Analysis of the End Semester Examinations for BSc was reviewed for Mathematics courses, by the BOS. The Board expressed that the overall result were satisfactory.

5. **To consider any other matter with the permission of the Chair**
   With no other matter to discuss the Chairman adjourned the meeting thanking all the participants. The Chairman thanked the subject experts and department members as well as Dean of Sciences for their presence and valuable suggestions.

16/02/2016

Dr. T V Joseph
Chairman
Board of Studies

Date: 16-02-2016