Certificate Course in Latex and GeoGebra

LaTeX is a software system for document preparation and is widely used for the communication and publication of scientific documents in many fields, including mathematics. When writing, the writer uses plain text as opposed to the formatted text found in "What You See Is What You Get" word processors like Microsoft Word, LibreOffice Writer and Apple Pages. The writer uses markup tagging conventions to define the general structure of a document to stylise text throughout a document (such as bold and italics), and to add citations and cross-references. A TeX distribution such as MiKTeX is used to produce an output file (such as PDF or DVI) suitable for printing or digital distribution. GeoGebra is an interactive geometry, algebra, statistics and calculus application, intended for learning and teaching mathematics and Science from primary school to university level. GeoGebra is available on multiple platforms, with apps for desktops(Windows, macOS and Linux), tablets(android, iPad and windows) and web

The Department of Mathematics, Mahatma Gandhi College, Iritty started a **Certificate Course in Latex and GeoGebra** Any student in the college doing I MSc Mathematics Course can join the course. There will be 30 hours of contact classes (including practical). A maximum of 25 students will be admitted to the course. At the end of course the student must be submit a printout of an article on MSc topic typed in LaTeX (minimum 20 pages). There will be a written exam (for 20 marks). Grade certificate will be issued to students who submit assignments in both LaTeX and GeoGebra and got more 40% marks in the written exam.

The syllabus of the course is given below:

Syllabus

No. of Contact hours : 30

Text Book: A Document Preparation System, Leslie Lamport, Pearson Edu Pub

Unit I (10 hrs)

Getting started, Carrying on

Sections- 2.1 to 2.5 & 3.1 to 3.7

Unit II (10 hrs)

Moving information around, Pictures and colors

Sections- 4.1to 4.7& 7.1 to 7.3

Unit III (10 hrs)

Familiarizing with GeoGebra tools , Relation with Algebra and Geometry (Giving algebraic input and getting geometric output),Creation of three dimensional geometrical objects ,Matrix Theory with the help of GeoGebra.

Practical Work:

1. Prepare an article on some MSc topic(Not more than 5 pages)
2. Type the MSc project work using Latex.
3. Construction of an equilateral triangle with given sides Fifis
4. Construction of cylinders, spheres of given measurements.
5. Finding eigen values and eigen vectors of given matrix.
6. Locating points and finding position vectors.

Faculties in Charge

1. Ms Priyanka P (Asst Professor, Department of Mathematics)
2. Ms Jimly Manuel (Asst Professor, Department of Mathematics)

No. of Students : 25

List of Students

1. Akhil V

2. Jyothish Raj P V

3. Akshara K R

4. Anagha P

5. Anchumol Mathew

6. Angel Elizabath Tom

7. Anusree Suresh

8. Arya P

9. Arya S

10. Aswathi Achuthan

11. Aswathi K

12. Aswani M

13. Athira James

14. Athulya A K

15. Chaithanya C K

16. Delna P T

17. Fahmida Sherin T

18. Hafeefa M P

19. Jyothika M

20. Mujmila E P

21. Nafa V M

22. Sneha K R

23. Sreelakshmi P Palat

24. Vyshnavi K

25. Zia R

Class started from January 2021   and came to an end by May 2021. Students prepared Assignment works using LaTeX software. They also submitted the assignments based on GeoGebra. As all students submitted these works grade certificates were issued to the students.