

DEPARTMENT OF MATHEMATICS

LIST OF ADD-ON COURSES

1	ELEMENTARY NUMERICAL CALCULATIONS BY MATHEMATICA
2	INTRODUCTION TO LATEX FOR BEGINNERS
3	INTRODUCTION TO MATLAB FOR BEGINNERS

269, DIAMOND HARBOUR ROAD, THAKURPUKUR, KOLKATA-700 063 Website : www.vckolkata63.org • email : vivekanandacollege63@gmail.com



VIVEKANANDA COLLEGE (GOVT. SPONSORED) (NAAC ACCREDITED GRADE 'A')

Ref No

Date 10/05/18

Notice

It is hereby notified that Vivekananda College. Thakurpukur, will offer Add-On Courses to All Honours students for the Academic year 2018-19.

Each Department will offer an Add-On Course as per UGC guidelines. Each Course will be structured & overseen by a Course Coordinator, selected from the respective Department. Departmental Heads are requested to take up the matter on an urgent basis.

10/05/18

Principal Viveranorida College Thakurpukur Kol-EL

O 269, DIAMOND HARBOUR ROAD, THAKURPUKUR, KOLKATA- 700 063



IQAC recommendation

IQAC, Vivekananda College, Thakurpukur, met on 04 May 2018, to envisage, formulate, and design Add-On Courses, beyond the prescribed Curriculum.

A. It was decided that all the departments of Humanities, Science and Commerce would design and formulate 30 hour Add-On Courses for 2018-19 Academic calendar, as per UGC guidelines.

B. It was decided that the Departments would be free to choose the Courses based on their (subject) relevance, practicality, and feasibility.

C. It was decided that the Departments would have a Course Coordinator, who would design the Course and Course material in consultation with all teachers of the Department.

D. It was decided that each Department would design its format.

E. It was decided that the Departments would be encouraged to use and utilize their resources while formulating the Add-On Courses, rather than relying on Outsourcing.

F. IQAC would send its recommendations to the Principal/TIC for perusal and implementation.

· Lo-ordinator I Q A C Vivekananda College Kolkata-700 053

09.06.2018 Meeting to conducting add-on-course for the academic year 2010 - 2019 Teachers Present: 1. Deligrano Mulilippi 2. Debrig Nath. 3. Jayeeta Saha 4. Author Dealer 5. Chandan Noti In this meeting it is decided that we will conduct on add-on-course on Mathematika for his slidents of Vinehamonda College. The course will be for 30 hours . It will be conduded by the course coordinator Debraj Nats all hu lechers of hi department will be taken the course. me details of the course of the syllabus distribution for léachts is given in a seponte page. Head, Department Mathemalis

To The Principal Vivekananda College Thakurpukur, Kolkata – 700063

Through the Convener of IQAC

Subject: Permission for conducting an add-on course

Respected Sir,

Date: 10/06/2018

Hereby express our interest to conduct an add-on course for all honours students on "Elementary Numerical Calculations by Mathematica" as decided in our departmental meeting held on 09/06/2018. The details of the program attached herewith.

I therefore request you to do the needful for smooth conduction of the said program.

Thanking you,

Yours sincerely

Aebrig Math.

Dr. Debraj Nath Course Coordinator Assistant Professor Department of Mathematics Vivekananda College, Thakurpukur Kolkata - 700063

18.06.2018 Meeting for 30 hours class Schedule Teachers present 1. Debrig Nett. 2. Debarab tinkheyi 3. Jayeeta Saha 4. Aniket Bhang 5. Chandan Kaji In this meeting it is decided that we will take classes on eech Salirday from 3.00 pm bo 6.00 pm For the days programme schedule is given in a separati speet. Debasis Mulikezi Head, Departured of Makents Meeting for dostribulin of application form of Add-m. 18.06.2018 course. I this multy it is decided that the of Appliculi form will be diepibilid among the shadents on 21.06.20 and last date of submission in 30,06.2013 Teaching present: 1. Debry Nati. 2. Aniket Bhanja. 3. Joyceth Saha 4. Alebasie huller 5. Chandan Megi Subarro Kukhegis Hend, Sept. of Mathiemilis Meeting for the Add-on-course class 01.09.2018 In this meeting it is decided that Add-on course class mill he started from 200 15.09.2018 Terepert fresher; 1. Debasis Mukher 2. Debraj Noth. 3 Jayeeta Saha 1. Awiket Bhamila Auhanie Antellerginits Hend, Sept. of Matimits 5. Chandan maji Course Crossinalis; Debrig Noth.

Department of Mathematics, Vivekananda College

Add-on course Title: Elementary Numerical Calculations by Mathematica

Session: 2018-2019 Course fee: Nil, Time duration: 30 hours, Total 100 marks:

Syllabus

- U1: Numerical calculations: Arithmetic, Exact, Approximate, Some mathematical functions, Arbitrary precision, Calculations of complex numbers 4 Classes
- U2: Matrices and Linear Algebra: Operations on Vectors: +, *, ^, ...
 Constructing Matrices: Table: construct a matrix from an expression
 Matrix Operations: Dot(.), Inverse, Transpose, Det, Tr, Eigenvalues, MatrixExp, ...
 Linear Systems: LinearSolve, NullSpace, MatrixRank, RowReduce, Minors, ...
 Minimization Problems: LeastSquares, PseudoInverse, Norm, LinearProgramming, ...
 Matrix Decompositions: SingularValueDecomposition, QRDecomposition,
 LUDecomposition, CholeskyDecomposition, ...
 Matrix Tests: MatrixQ, HermitianMatrixQ, SymmetricMatrixQ, PositiveDefiniteMatrixQ
 Displaying Matrices: MatrixForm display a matrix in 2D form
- U3: Symbolic Mathematics: Basic operations, Differentiation, Integration, Sums, Products, Equations, Solving equations

Symbolic Mathematics: Differential Equation, Power series, Limit, Numerical Mathematics: Basic operations, Numerical sums, Products, Integrations, Numerical Equation solve, Numerical Differential Equation, Numerical Integration Graphics: Basic plotting, Contour plot, Density plot, 2D plot, 3D plot, 3D surface plot, plotting lists of Data, Parametric plot, 2D list plot, 3D list plot 4 Classes

U4: Numerical Optimization:

NMinimize, NMaximize: nonlinear constrained global optimization FindMinimum, FindMaximum: local unconstrained or constrained optimization Symbolic Optimization:Minimize, Maximize: symbolic global optimization Extremal Values & Locations MinValue, MaxValue: minimum, maximum values NMinValue, NMaxValue, FindMinValue, FindMaxValue ArgMin, ArgMax: position of minimum, maximum NArgMin, NArgMax, FindArgMax, FindArgMin, ...

4 Classes

- U6: Functions and programs: Definition of functions, Complex Numbers: I, Re, Im, Conjugate, Abs, Arg. Elementary Functions: Log, Log10, Exp, Sqrt, Sin, Cos, Tan, ArcTan, Tanh, Sinc, ...
 2 Classes
- U7: Special Functions: Gamma, Erf, BesselJ, BesselK, LegendreP, HermiteH, LaguerreL, Hypergeometric2F1, HypergeometricPFQ, ... 2 Classes
- U8: Integer Functions: Mod, Quotient, Divisible, GCD, Factorial(!), Binomial, Fibonacci, BernoulliB, ... 1 Classes
- U9: Numerical Evaluation & Precision
 Representation of Numbers: IntegerDigits, RealDigits, FromDigits, IntegerQ, ...
 Display of Numbers: NumberForm, NumberMarks, InputForm, CForm, ...
 2 Classes

U10: Equation Solving

Solve: exact solutions to equations and systems NSolve: general numerical solutions to equations and systems FindRoot: numerically find local roots of equations DSolve: exact solutions to differential equations NDSolve: numerical solutions to differential equations LinearSolve: solve linear systems in matrix form

3 Classes

U11: Special Characters:

Mathematica Syntax: \[Infinity], \[Degree], \[Pi], I, E, ... Greek Letters: \[Alpha], \[Beta], \[Theta], \[CurlyTheta], \[Phi], \[Omega], \[CapitalDelta], ... Notational Alphabets: \[ScriptA] \[ScriptCapitalA], ... Mathematical Notation: \[Integral], \[Sum], \[PartialD], \[Del], \[ForAll], \[Intersection], 2 Classes

\[Congruent],...

U12: ContourPlot, ContourPlot3D: plot solution curves and surfaces RegionPlot, RegionPlot3D: plot regions satisfied by inequalities

2 Classes

Marks distribution:

Assignment: 20 Marks, Test exam: 80 Marks (Theory: 40 Marks, Practical: 40 Marks)

Teachers will engage: Dr. Debsis Mukherjee, Dr. Debraj Nath, Dr. Jayeeta Saha, Prof. Aniket Bhanja

Syllabus distribution: Unit 1,3.2, 4 - JS; Unit 5,7,8,12- DM; Unit 2,6,11- AB; Unit 3.1,3.4,9,10- DN

Objective:

This course will be helpful for research works.

Note: After completion the add-on course students will get completion certificate and grade card.

Signature

(i) Debrig Nath "

(ii) Jayeeta Saha

(iii) Antket Bharfs. (iv) Delegors Inchesji

Course coordinator:

Dr. Debraj Nath, 12/06/18

Assistant Professor, Department of Mathematics

Department of Mathematics Vivekananda College, Thakurpukur

Add-on course, Session: 2018-2019 Title: Elementary Numerical Calculations by Mathematica

Curriculum Planning and Implementation

Davs	Faculty	TOPICS	DURATION	TH/PR
Day1	JS	Numerical calculations: Arithmetic, Exact, Approximate, Some mathematical functions, Arbitrary precision, Calculations of complex numbers	2H	TH+PR
	AB	Matrices and Linear Algebra: Operations on Vectors: +, *, ^, Constructing Matrices: Table: construct a matrix from an expression Matrix Operations: Dot(.), Inverse, Transpose, Det, Tr, Eigenvalues, Matrix Exp.	IH	ТН
Day2	DN	Symbolic Mathematics: Basic operations, Differentiation, Integration, Sums, Products, Equations, Solving equations	2H	TH+PR
······································	JS	Symbolic Mathematics: Differential Equation, Power series, Limit,	1H	TH
Day3	DN	Numerical Mathematics: Basic operations, Numerical sums, Products, Integrations, Numerical Equation solve, Numerical Differential Equation, Numerical Integration	2Н	TH+PR
	AB	Linear Systems: LinearSolve, NullSpace, MatrixRank, RowReduce, Minors, Minimization Problems: LeastSquares, PseudoInverse, Norm, LinearProgramming	ін	ТН
Day4	JS	Numerical Optimization: NMinimize, NMaximize: nonlinear constrained global optimization FindMinimum, FindMaximum: local unconstrained or constrained optimization	2H	TH+PR
	AB	Matrix Decompositions: SingularValueDecomposition, QRDecomposition, LUDecomposition, CholeskyDecomposition, Matrix Tests: MatrixQ, HermitianMatrixQ, SymmetricMatrixQ, PositiveDefiniteMatrixQ Displaying Matrices: Matrix Form display a matrix in 2D form	IH	ТН
Day5	DN	Graphics: Basic plotting, Contour plot, Density plot, 2D plot, 3D plot, 3D surface plot, plotting lists of Data, Parametric plot, 2D list plot, 3D list plot	2H	TH+PR
	AR	Functions and programs: Definition of functions,	IH	TH
Day6	AB	Complex Numbers: I, Re, Im, Conjugate, Abs, Arg. Elementary Functions: Log, Log10, Exp, Sqrt, Sin, Cos, Tan.	IH	TH
	DM	Special Functions: Gamma, Erf, BesselJ, BesselK, LegendreP HermiteH Laguerrel, Hypergeometric2F1, HypergeometricPFQ,	, 2H	TH+PR
Day7	DM	Integer Functions: Mod, Quotient, Divisible, GCD, Factorial(!) Binomial, Fibonacci, BernoulliB.	, 2H	TH+PR
	DN	Numerical Evaluation & Precision Representation of Numbers: IntegerDigits, RealDigits, FromDigits IntegerQ, Display of Numbers: NumberForm, NumberMarks, InputForm CForm	1H	ТН
Day8	JS	Symbolic Optimization: Minimize, Maximize: symbolic global optimization	2H	TH+PR

	-	Extremal Values & Locations MinValue, MaxValue: minimum, maximum values NMinValue, NMaxValue, FindMinValue, FindMaxValue		
	DN	Equation Solving Solve: exact solutions to equations and systems NSolve: general numerical solutions to equations and systems FindRoot: numerically find local roots of equations DSolve: exact solutions to differential equations NDSolve: numerical solutions to differential equations LinearSolve: solve linear systems in matrix form	IH	TH
Day9	AB	Special Characters: Mathematica Syntax: \[Infinity], \[Degree], \[Pi], I, E, Greek Letters: \[Alpha], \[Beta], \[Theta], \[CurlyTheta], \[Phi], \[Omega], \[CapitalDelta],	2H	TH+PR
	JS	ArgMin, ArgMax: position of minimum, maximum	1H	TH
Day10	DM	ContourPlot, ContourPlot3D: plot solution curves and surfaces RegionPlot, RegionPlot3D: plot regions satisfied by inequalities	2H	TH+PR
	AB	Special Characters: Notational Alphabets: \[ScriptA] \[ScriptCapitalA], Mathematical Notation: \[Integral], \[Sum], \[PartialD], \[Del], \[ForAll], \[Intersection], \[Congruent],	1H	тн

Signature

(i) Debszej Nath

(iii) Jayeeta Sala (iii) Deleans Mukheyn (iv) Aniket Bhalf

Course coordinator:

Debzig Nath. 12 06/18

Dr. Debraj Nath Assistant Professor Department of Mathematics

19.01.2019 Meeting for Examintin of Add-on-course/(assignmed) In this meety it is decided be taken that the a Norganut for Add-on Course will be given to the stidents which will be conveyed by the faculty menduos. This addigament will be 25 miller epinen by each faculty members, the adorgnment will be made 'y 02.02,2019 Also in this mety is is decided his total months of the Add-on-course in 100. Twenty (20) mights in taken from the assignant and 40 marks in a signant for pretical examinta, me examinate migh he held on 02.02.2019 fm 3.00 pry -6 pm. ASso me decided that his quinter pape frothing contre will be done by Debrag Math. Testaling In result will be published on 16.02,2019. Teachere premt: 1. Lubrais Mukher 2. Dobraj Natz. 3. Joyerta Saha 4. Aniket Bhalys 5. Chandan Magi Debasie Mulchespi Hend, Seff. of Mathematis Course Wordinalis; Debroj Noth.

IQAC recommendation

IQAC, Vivekananda College, Thakurpukur, met on 03 May 2019, to envisage, formulate, and design Add-On Courses, beyond the prescribed Curriculum.

A. It was decided that all the departments of Humanities, Science and Commerce would design and formulate 30 hour Add-On Courses for 2019-20 Academic calendar, as per UGC guidelines.

B. It was decided that the Departments would be free to choose the Courses based on their (subject) relevance, practicality, and feasibility.

C. It was decided that the Departments would have a Course Coordinator, who would design the Course and Course material in consultation with all teachers of the Department.

D. It was decided that each Department would design its format.

E. It was decided that the Departments would be encouraged to use and utilize their resources while formulating the Add-On Courses, rather than relying on Outsourcing.

F. IQAC would send its recommendations to the Principal/TIC for perusal and implementation.

Lo-ordinator IQAC wekananda College

VNekananda Collegi



IVEKANANDA COLLEGE (GOVT. SPONSORED) (NAAC ACCREDITED GRADE 'A')

Ref No.

Dato 08-5-19

Notice

It is hereby notified that Vivekananda College, Thakurpukur, will offer Add-On Courses to All Honours students for the Academic year 2019-20.

Each Department will offer an Add-On Course as per UGC guidelines. Each Course will be structured & overseen by a Course Coordinator, selected from the respective Department. Departmental Heads are requested to take up the matter on an urgent basis.

Principel Vivekenanda College Thakurpukur Kol-63

269, DIAMOND HARBOUR ROAD, THAKURPUKUR, KOLKATA- 700 063
 Website : www.yckolkata53.org 0tmail : vivebanandacollege53@gmail.com

30.05.2019 Meeting for conducting odd - in - louose fis his deadour year 2019-2020 Treachest presant: 1. Laboras Luckhen-2 Sobry Net. 3 Jayarta Daha 4 Anoket Flag In this multy it is decided that we will conduct on nel - on- course " Latin " for they the students of Vinchanand College . The course cuill de for 30 hours. It will be condicted by his course continto Injust Sata and all the teachers of the depresent will be taken the course . The details of the course all gulalis distribute for teachers in given win a report page . Debraw tinklugin Hend, Dieft. of Mathy.

To The Principal Vivekananda College Thakurpukur, Kolkata – 700063

Through the Convener of IQAC

Subject: Permission for conducting an add-on course

Respected Sir,

Date: 04/06/2019

Hereby express our interest to conduct an add-on course for all honours students on "Introduction to LaTeX for beginners" as decided in our departmental meeting held on 30/05/2019. The details of the program attached herewith.

I therefore request you to do the needful for smooth conduction of the said program.

Thanking you,

Yours sincerely

Jayret Saha

Dr. Jayeeta Saha Course Coordinator Department of Mathematics Vivekananda College, Thakurpukur Kolkata - 700063

30.05.2019

Meeting for 30 house class Reheduly Terohere prend: 1. Autorio Mulcher 2. Debory Math. 3. Juiked Blange 4. Joyeets Saha In this multy it is decided that we will take class in each Saturday from 3 pm - 6 pm. For ten day. programme Schedule in given vir a separati Theet Head, Deft. of Matry. Meeting for distribution of Appliation from of Add-in 06.06.2019 course. In tim multy it is decided that his appliate from will be distributed army the students on 08.6.2019 and the harf date of submission in 01.07.2019 Teachers premet; 1. Ashand Inkhip 2. Debry NA 4. Miket Black Subaro Multher-Head, Deff. of houts. meling for the Add-m-louse class 31.08.2019 In his mely it is decided that Add-on-Course class will the started for 7.9.2019 Teachers mut: 1. Automis Mulchespi 2. sobrie Not 4 Jayret Sally Debana Mulcher Loave Woodinalis: Jayoon Sake Head , Supt. of Months .

Department of Mathematics, Vivekananda College

Add-on course Title: Introduction to LaTeX for beginners Session: 2019-2020 Course fee: Nil, Time duration: 30 hours, Total 100 marks: Syllabus Syllabus Unit1.: Introduction: Latex file preparation (save, copy, paste, etc...), Latex file compilation (run, build pdf, Gs view etc...). G classes G classes Unit2: Document class: Article, Report, Letter, Thesis, Book B classes Unit3: Use package: amsmath, amssymb, graphics, graphicx, Geometry, algorithms, color, Hyperref 2 classes Unit4: Mathematics: Equation, symbols, font, function 6 classes

Unit5: Style: Page style (title, abstract, keywords, section, subsection, bibliography, citation, acknowledgement), itemize, table, special characters 4 classes

Unit6: Beamer presentation: frame, block, paper presentation, project format 4 classes

Marks distribution:

Assignment: 20 Marks, Test exam: 80 Marks (Theory: 40 Marks, Practical: 40 Marks)

Teachers will engage: Dr. Debsis Mukherjee, Dr. Debraj Nath, Dr. Jayeeta Saha, Prof. Aniket Bhanja

Syllabus distribution: Unit 1- JS; Unit 2- DM; Unit 3 & 4- AB; Unit 5 & 6- DN

Objective:

This course will be helpful research work and document preparation in different styles.

Note: After completion the add-on course students will get completion certificate and grade card.

Signature

Debosis timberezi (i)

Debrig Nath. (iii)

Joyeet (iii) Awaket (iv)

Course coordinator: Jayret Sala Dr. Jayeeta Saha

Assistant professor, Department of Mathematics

Department of Mathematics Vivekananda College, Thakurpukur

Add-on course, Session: 2019-2020 Title: Introduction to LaTeX for beginners

Curriculum Planning and Implementation

Days	TOPICS	DURATION
Day1	JS-Basic knowledge of Latex, introduction, AB-Basic Knowledge about usepackage	JS-1+1, AB-1 Theory 2 hour, practical 1
Day2	JS-Latex file preparation (save, copy, paste, compilation, run, build pdf, Gs view etc.), DN- Basic Knowledge about page style	JS-1+1, DN-1 Theory 2 hour, practical 1
Day3	AB-Use package: amsmath, amssymb, graphicx, Geometry, DM: Document class	AB-1, DM-1+1 Theory 2 hour, practical 1
Day4	DM-document preparation report, letter form, JS-gs view, eps/jpg figure,	DM-1+1, JS-1 Theory 1 hour, practical 2
Day5	AB-Use package: algorithms, Mathematics: font, function, DN- Style: Page style (title, abstract, keywords, section, subsection, acknowledgement),	AB-1+1, DN-1 Theory 1 hour, practical 2
Day6	JS-online Latex file preparation DM-document preparation thesis and article form	JS-1, DM-1 +1 Theory 2 hour, practical 1
Day7	JS-Practical, DN- Style: itemize, table, special characters	JS-1, DN-1+1 Theory 2 hour, practical 1
Day8	AB-Use package: color, Hyperref., Mathematics equationDN- Style: special characters, citation, bibliography, journal format.	AB-1+1, DN-1 Theory 2 hour, practical 1
Day9	AB- Mathematics:symbols, font, function, DN- Beamer presentation: frame, block	AB-1+1, DN-1 Theory 1 hour, practical 2
Day10	DM-document preparation Book form DN-Beamer presentation: paper presentation, project format	DM-1, DN-1+1 Theory 0 hour, practical 3

Signature

(1) Delenaro Mukheri (11) Debnij Noth (11) Jayreta Saha 30 5.19

Anket Sharg (iv)

Course coordinator:

Jayreta Saha 30.5.19 Dr. Jayeeta Saha

Assistant Professor Department of Mathematics

24.12.2019 Meeting for Examination of Add-on course (Assignut) In this meeting it in decided that his absigning for Add-on-Course will be given to the students which will be informed by the faculty members. This alsignment will up made by 04.01.2020 . the total marks of his Hold-on- chure in 100. Thing (20) markes in taken from the assignment and 40 makes in arright for finatical beginination , the ispanion in will be held on . 04.01-2020 from 3 pm - 6 pm . Alw me decided that the quertion paper for the course mill be done by Jayreth Sche. Tenfalm date of the venelt with be published m 18.01.2020 Teachies present: 1. Detanes Multhesp 2. sebrig Neth 3. Jayerta Saha 4 Antest Shangs Dolesse Mulcher Head, Seft of Math Loune lovestinti: Jayerte Sahr

IQAC recommendation

IQAC. Vivekananda College. Thakurpukur, met on 14/Sept/2021, to envisage. formulate and design Add-On Courses, beyond prescribed Curriculum

A it was decided that all the departments of Humanities, Science and Commerce would design and formulate 30 hour Add-On Courses for the session 2021-22, Academic calendar, as per UGC guidelines.

8. It was decided that the Departments would be free to choose the Courses on the basis of their (subject) relevance, practicality and feasibility.

C it was decided that the Departments would have a Course Coordinator, who would design the Course and Course materials, in consultation with all teachers of the Department.

D. It was decided that each Department would design its own format; and could follow a blended mode of instruction.

E. It was decided that the Departments would be encouraged to use and utilize their own resources while formulating the Add-On Courses, rather than relying on Outsourcing.

FIGAC would send its recommendations to the Principal/TIC for perusal and implementation.

Lo-ordino IQAC Vivekananda College Kolkata-700 063



Buf No.

(GOVT. SPONSORED) (NAAC ACCREDITED GRADE 'A')

Date 21/9/21

It is hereby notified that Vivekananda College, Thakurpukur, will offer Add-On Courses to All Honours students for the Academic year 2021-22.

Notice

Each Department will offer an Add-On Course as per UGC guidelines. Each Course will be structured & overseen by a Course Coordinator, selected from the respective Department. Departmental Heads arerequested to take up the matter on an urgent basis.

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O 269, DIAMOND HARBOUR ROAD, THANURPUKUR, KOLKATA- 700 063 Website : www.vcksikuta61.org email : vivekanandacalleget3.0pmail.com

Add-on-lourse Meeting for conducting to bu academic vis prepent so unkpop Debny Nath In this meeting it is decided that we will conduct on Add. on lourne enlitled " Introdulin to MATLAS for leginnes stidents of Vivekerranda College, The course he hi will be for 30 hourse of will be conducted course - coordinates Sebases Mulchagin and all the forently members of the department will take the course . The of the lourne and gelabus distribution 1 Us given a separante page. Permission for is Submilled to his Pricipal counce

To The Principal Vivekananda College Thakurpukur, Kolkata - 700063

Through the Convener of IQAC

Subject: Permission for conducting an add-on course in the academic year 2021-2022

Head

Respected Sir,

Date: 17/11/2021

Debadout of Mathemali

Hereby express our interest to conduct an add-on course in this academic year for all honours students on "Introduction to MATLAB for beginners" as decided in our departmental meeting held on 17/11/2021. The details of the program attached herewith.

I therefore request you to do the needful for smooth conduction of the said program.

Thanking you,

Yours sincerely

mano Amphilip

Dr. Debasis Mukherjee Course Coordinator,

22.11.2021 Meeting for 30 house class schedule and applicalis Jerm for Ald-On-Cousie. Teachers present; 1. Debonio Mikhegu 2. Adong Net. 3. Jayeets Saha and in some 4. Aniket Bhow In this multy it is decided that we will bake classes on look Saturday fam 3. 10 PM to 6 PM. For lendays programme Schedule in given in a separate theil. It is further devided that Appliertin form will be distributed among the stineals on 25.11.2021 and the last date of submission is 30.11.2021 I have therefore and for the standing Selono tulcheon de la la sandal sa la stal Course- Coordinator Habant of Makamito 03.12.2021 nuting for Add-on-Course Terchens present: 1. Aubanis puckey 2. Deling Note 3. Jayert Sahan 4. Awtket Bleaks 03.12.2021 In this multing it is decided that Add-on- lourne class mill be starked from 06.12. 2021 Selanto Mulchegui Head, Repartment of Mathematis lowme booting to

Add-on-Course

Title : Introduction to MATLAB for beginners

Session: 2021-2022

Course Fee : Nil, Time duration: 30 hours, Total Marks: 100

Syllabus

Unit1: Notion on MATLAB; Fundamentals of MATLAB: windows - input & output - platform 6 classes dependence - file types - general commands Unit2: Script Files; Function files: Functions - Sub functions; Global Variables, Loops, Branches and control-flow. Unit3: Lessons: Working with arrays of numbers, Creating and Printing simple plots. [2 classes] Unit4: Creating, saving and executing a script file - Creating and executing a function file -

Working with Files and Directories . Unit5: Graphics; Basic 2D plots: Style Options - Labels, title and legend - Axis Control, zoom in and zoom out -modifying plots with plot editor - Overlay plots - Specialized 2D Plots. 3D plots; View: Rotate view, Mesh and surface plots. Saving and printing graphs. [4 classes] Unit6: Mathematical computations: Algebraic and differential equations.

References

1.Getting started with MATLAB- Rudra Pratap, Oxford University Press. 2010. 2. Understanding MATLAB- S N Alam and S. S. Alam. I K International Publishing House. 2013.

Marks Distribution: Assignment: 20marks, Test examination: 80 marks (Theory: 40 marks, Practical: 40 marks.

Teachers will engage: Debasis Mukherjee, Debraj Nath, Jayeeta Saha and Aniket Bhanja.

Syllabus distribution: Unit 1-JS, Unit 2- DM, Unit 3 & 4- AB, Unit 5 & 6- DN.

Objective: This course will help the students to write simple computer programs in Matlab and use the idea to evaluate scientific problems.

Note: After completion the Add-on-Course students will obtain completion certificate and grade card.

(i) Delaser hulcheyn' (iii) Joyeets Saha Signature,

(ii) Debry Noth. (iv) Ani Ket Blenky

Course coordinator:

Helenno Mikhon

(Debasis Mukherjee) Asssociate Professor Department of Mathematics

Add-on-Course Title : Introduction to MATLAB for beginners Session: 2021-2022 Course Fee : Nil, Time duration: 30 hours, Total Marks: 100

Curriculum Planning and Implementation

Dave	Topics	Duration
Day 1	JS-Notion on MATLAB, DM-Script Files	JS-1+1, DM-1 Theory 2 hour, practical 1hour
Day 2	JS-Fundamentals of MATLAB, DM-Functions Files	JS-1+1, DM-1 Theory 2 hour, practical 1hour
Day 3	JS-windows - input & output, DM-Functions - Sub functions	JS-1, DM-1+1 Theory 2 hour, practical 1 hour
Day 4	JS-platform dependence , DM- Global Variables, Loops, Branches	JS-1, DM-1+1 Theory 1 hour, practical 2 hour
Day 5	JS file types - general commands , DM-control flow	JS-1+1, DM-1 Theory 0 hour, practical 2 hour
Day 6	AB-Working with arrays of numbers, DN-Basic 2D and 3D plots: Axis Control, zoom in and zoom out -modifying plots with plot editor	AB-1+1, DN-1 Theory 2 hour, practical 1hour
Day 7	AB-Creating and Printing simple plots, DN- Style Options - Labels, title and legend	AB-1+1, DN-1 Theory 2 hour, practical 1 hour
Day 8	AB-Creating, saving and executing a script file, DN-Overlay plots – Specialized 2D Plots. 3D plots; View: Rotate view	AB-1, DN-1+1 Theory 2 hour, practical 1 hour
Day 9	AB-Creating and executing a function file, DN- Mesh and surface plots, Saving and printing graphs.	AB-1, DN-1+1 Theory 2 hour, practical 1 hour
Day 10	AB-Working with Files and Directories, DN- Algebraic and differential equations	AB-1, DN-1+1 Theory 0 hour, practical 3 hour

Signature

(1) Selesno Mukhozu (111) Jayer Saha

(11) Anikel Bhalf, (11) Deborg Note

Course Coordinator:

Dubares Hukhapi

Debasis Mukherjee, Associate Professor, Department of Mathematics

List of Applicants (2021-2022) 1. Jyok Wadkas 2. Annya Purkait 3 Angnika Haldes 4. Esta Narkar S. Debabring Haldes 6. Kayal shan 7. Alinia Mondel 8. Ipsit Paul 9. Trish nondal 10. Soyani Mondal 11. Delling history 12. Sreya Mondel 13. Pritan gayen 14. Koulab Baswas 15. Shubhan Bangal 16. Ankit Chakadory 17. Krishnenden Mondal 18. Sebargha Ray 19. Deep Mondal 20. Sommy A Thakur 21. Rilik Kr Shaw 22. Suman Kuley 23. Aparba Das 24. Sandipon Ray 25. Risher Sinha 26. Ritom Mondel 27. Shiraj Haldes 28. Arghajagit Nayak 29. A Shistek Harra 30. Priloch Bisward 31. Anitskelk Paul 32. Amalija Chatlerni 33. dipanjan Jodder 34. Agriswar Mondal 35. Subhadip Patra 36, Jopinath Saha

rational hips a many 37) Ayush Malakar 58) Diptaruf Saha 39) Abhishelt Paul ing advanced 40) Sk. Md Nazmus Saquib 41) shakil Ahmed Main me Pallie many of La July . A Nd. Talamin Laskar 42) 43) Hasibur Laskar Ananya Bhandari 44) 45) Debjani Kundu Sangita Mondal 46) 41) Saradiya Sarkar Amrita Mondal metter a count 48) here should 49) Moumita Naskar Sec. manne of Anoesha Mukheyee 50) attent photos 51) Sneha Sardar Introduce procession Igedi sudipta gayen. 52) Puya Maskar 53 to second up 54) Ananya Purkait one finderia 55 Aramika Halda Charlespinest 56) Shreya Kamakan Wat mainly? 53) Susmili Bigwas 2-622 Enjorer 58) Maimuna xhatun Rumang Yeshmin 59) Sec. St. 60) Supration somenta Hards Tolard 61) Sudesh Das Parine Paria 62 Subhojyati Debanjee 63 Priter Gayen month uno Scharyce 64) Gayon 10- 00 65 Voulab Eliswag man printer-66) Poince tr. Chandhury Para a in int 67 Shubhan Bangal Ankit chakrabortij Kunnoh 520 68) Lomes in the 69) Pranay Histore lik 70) Voustale Day 케 Krishnondu Hondol 43 Rohan Pat

73) Yasa Arafat Jamadar 74) Debargha Roy 75) Nayanika Bera 76) Mahima Mallik 77) Rishit Manna. 78) Subhadi'y Nordi 79) Arnab Mondal ro) Milaneu Ghosh 8) Madhumda Pardit 82) Nordira Das 83) sariya Jolam 84) Dolan Mandal 85) Hrigenka Kayal 86) Bidhen Naskar 87) Chinmay Mordal 88) Millon Sardor 89) sublaskar berg 90) Subhajit Das. 91) Arrab Chalenabosty 92) Spandan Roy 93) Nirmalya Glotak. 94) Debojyati Banerjee 95) Adarsh Kuman Shah 96) Ankita Chowdhury 97) Ruponfana Nordal 98) Rohan Moor 99) Sarfaraj Jamada 100) Motor Das Ipshita Day 101) (0) sarket faul 103) Ritik Know Ray 104) Nitish kumar Share. 1 1

Meeting for ever minalion of Add-on-Course and Alstignment In this mety it is decided that the assignment for Add-on-lourse will be given to be slidents which will be conveyed by hi frenkly menkers. This assignment will be 25 marks given by each frenkly members, The Mognment will be made by Also in this metz it is decided that his tillal masks of the Add-on-Course in 100. Theney (20) marks in taken from the assignment at 40 marks in assignment for prodical logaritudion. The examination will be held on 21.03.2022 from 3. on pm - 6 pm. Also we decided that the question paper for this course will be done by Delando Mulcheni. Tentalively, the result will be published on 11.04.2022 Teachers ment; 1. Dibaris Inkhezen. 2. Anikat Dhales Debrig Not. Head, Acpartment of Mathematics Edura Continutor

IQAC recommendation

IQAC. Vivekananda College, Thakurpukur, met on 18/June/2022, to envisage, formulate and design Add-On Courses, beyond prescribed Curriculum. The IQAC has also decided to organise a program on staff training.

- A it was decided that all the departments of Humanities, Science and Commerce would design and formulate 30 hour Add-On Courses for 2022-23, Academic calendar, as per UGC guidelines.
- B. It was decided that the Departments would be free to choose the Courses on the basis of their (subject) relevance, practicality and feasibility.
- C. It was decided that the Departments would have a Course Coordinator, who would design the Course and Course materials, in consultation with all teachers of the Department.
- D. It was decided that each Department, would design their own format, and could follow a blended mode of instruction
- E. It was decided that the Departments would be encouraged to use and utilize their own resources while formulating the Add-On Courses, rather than relying on Outsourcing.
- F. IQAC would send its recommendations to the Principal/TIC for perusal and implementation.
- G. The IQAC would also organise a Staff Training programme 'Effective Working Style 'Conducted by IPE Of Professional Excellence On 25th June 2022

Co-ordinator I Q A C Verekanansta Celloge Kolkara Jou 252

(033) 2497 6824 (033) 2497 6834

Date



VIVEKANANDA COLLEGE

Ret No.

Notice

It is hereby notified that Vivekananda College, Thakurpukur, will offer Add-On Courses to All Honours students for the Academic year 2022-23.

Each Department will offer an Add-On Course as per UGC guidelines. Each Course will be structured & overseen by a Course Coordinator, selected from the respective Department. Departmental Heads are requested to take up the matter on an urgent basis.

Principal

Vineton and the Than putin, Marrie

30/07/2022 Meeting for conducting add-on course for the academic year 2022-2023 Teacher's present: 1. Debrig Nett. 2. Heboraro Mulcheyn 3. Jayeeta Saha 4. Aniket Bhangs It is decided that we will conduct the add-on course on later for the houndurs students. The course will be for 30 hours. The course Co-ordinator of this course will be Jayeeta Saha. All the teachers of our department will be taken the course. The details of the course and syllabus distribution for teacher is given in a separate page. Debrig Nath. Head, Department of Mathematics

To The Principal Vivekananda College Thakurpukur, Kolkata – 700063

Through the Convener of IQAC

Subject: Permission for conducting an add-on course for the academic year 2022-2023

Respected Sir,

Date: 03/08/2022

Hereby express our interest to conduct an add-on course in this academic year for all honours students on "Introduction to LaTeX for beginners" as decided in our departmental meeting held on 30/07/2022. The details of the program attached herewith.

I therefore request you to do the needful for smooth conduction of the said program.

Thanking you,

Yours sincerely

Jayceta Saha

Dr. Jayeeta Saha Course Coordinator Assistant Professor Department of Mathematics Vivekananda College, Thakurpukur Kolkata - 700063

3/8/22 Meeting for 30 hours class ad schedul and distribution of the application form of Add on Course. Teacher Present: 1. Debrog Noth 2. Debasis Multhoni 3. Jayet Daha 4. Andket Bhatas In this meeting we decided that we will take classes on each saturday from 3.00 PM to 6.00 PM. For ten days curriculum Planning is given in a deparate sheet It is also decided that the application form will be distributed among the students on 8/8/22 & the last date of subsistan will be 12/08/22. The class will be started from 13/08/22 Jayeets Saha Debry Neth Course co.ordinater Head, Det of Mathematic.

Department of Mathematics, Vivekananda College

Add-on course Title: Introduction to LaTeX for beginners

Session: 2022-2023 Course fee: Nil, Time duration: 30 hours, Total 100 marks

Syllabus

Unit1.: Introduction: Latex file preparation (save, copy, paste, etc.,), Latex file compilation (run, build pdf, Gs view etc..). [6 classes]

Unit2: Document class: Article, Report, Letter, Thesis, Book [8 classes]

Unit3: Use package: amsmath, amssymb, graphics, graphicx, Geometry, algorithms, color, Hyperref [2 classes]

Unit4: Mathematics: Equation, symbols, font, function, changing sizes [6 classes]

Unit5: Style: Page style (title, abstract, keywords, section, subsection, bibliography, citation, acknowledgement), itemize, table, special characters [4 classes]

Unit6: Beamer presentation: frame, block, paper presentation, project format[4 classes]

References

LATEX- A Document Preparation System, Leslie Lamport, Addison-Wesley, 1994.
 George Gratzer, Practical LATEX, Springer, 2014.

Marks distribution:

Assignment: 20 Marks, Test exam: 80 Marks (Theory: 40 Marks, Practical: 40 Marks)

Teachers will engage: Dr. Debsis Mukherjee, Dr. Debraj Nath, Dr. Jayeeta Saha, Prof. Aniket Bhanja

Syllabus distribution: Unit 1- JS; Unit 2- DM; Unit 3 & 4- AB; Unit 5 & 6- DN

Objective: This course will be helpful research work and document preparation in different styles.

Note: After completion the add-on course students will get completion certificate and grade card.

Signature

(i) Sebrig Nate

(111) Jayeet Sala (11) Aniket Dham

Course coordinator:

Jayeet Saha

Dr. Jayeeta Saha Assistant professor, Department of Mathematics

Add-on course, Session: 2022-2023 Title: Introduction to LaTeX for beginners

Curriculum Planning and Implementation

-	TOPICS	DURATION	
Days Day1	JS-Basic knowledge of Latex, introduction, AB-Basic Knowledge	JS-1+1, AB-1 Theory 2 hour, practical 1	
Day2	JS-Latex file preparation (save, copy, paste, compilation, run, build pdf, Gs view etc.), style AB-Use package: amsmath, amssymb, graphicy Geometry	JS-1+1, AB-1 Theory 2 hour, practical 1	
Day3	DN-Basic Knowledge about page DM: Document class	DN-1, DM-1+1 Theory 2 hour, practical 1	
Day4	AB-Use package: algorithms, Mathematics: font, function, JS-gs	AB-1+1, JS-1 Theory 1 hour, practical 2	
Day5	DM-document preparation report, letter form, DN- Style: Page style (title abstract keywords section subsection, acknowledgement)	DM-1+1, DN-1 Theory 1 hour, practical 2	
Day6	JS-online Latex file preparation DN- Style: itemize, table, special	JS-1, DN-1 +1 Theory 2 hour, practical 1	
Day7	JS-Practical, DM-document preparation thesis and article form	JS-1, DM-1+1 Theory 2 hour, practical 1	
Day8	AB-Use package: color, Hyperref,, Mathematics equation DN- Style: special characters citation, bibliography, journal format,	AB-1+1, DN-1 Theory 2 hour, practical 1	
Day9	AB-Mathematics:symbols, font, function, DN- Beamer	AB-1+1, DN-1 Theory 1 hour, practical 2	
Day10	DM-document preparation Book form DN-Beamer presentation:	DM-1, DN-1+1 Theory 0 hour, practical 3	

Signature

(i) Debarsis Multheyni (ii) Debrig Nath (iii) Joyceta Saha (iv) Amikat Bhalf

Course coordinator:

Jayrets Saha

Dr. Jayeeta Saha Assistant Professor **Department of Mathematics**

17/12/22 Meeting for Exam of Add-on-course. Teacher Present: 1. Debrig Not. 2. Debras Mikheyi 3. Jayeeta Saha 4. Aniket Blacks. It is decided that total marks of the exemination will be 100. Twenty marks (20) is taken from the assignment and 40 marks is assigned for the theoritical exam and 40 marks is assigned for practical examination. The examination will be held on 12/24/12/22 from 3.00 PM-6.00 PM. Also we decided that the question paper for this course will be done by Dr. Jayeeta Saha. " Assignment for Add-on course will be given to the students which will be by the faculty members. The last dals of the data is 24/12/22. Tentatively the result will be published by # on 14/01/2023 Debrig Noth Head, Det of Mathematics Jayeets Saha Course Coordinator