

# WMO ARTS & SCIENCE COLLEGE, MUTTIL

WAYANAD, KERALA. PIN:673122

Email: [wmocollege@gmail.com](mailto:wmocollege@gmail.com) , Web site: <https://wmocollege.ac.in>



## CRITERIA-1

(1.4.1: Communication on Feedback and Action Taken by the University.

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W M O Arts & Science College, Muttil

## **Report on Feedback Communications with the University and Actions Taken by the University**

### **1. Introduction**

WMO Arts and Science College promptly collects and assesses the feedback from its stakeholders viz parents, alumni, students, and teachers. A format is prepared and distributed among all the stakeholders on different occasions. In addition to the feedback on the curriculum, feedback on the institution is also collected from the stakeholders. IQAC consolidates the feedback report and holds discussions among the members of the faculty and communicates it to the authorities concerned.

The College circumspect curricular and co-curricular grievances and concerns to the University of Calicut. Many suggestions are put forward to avoid ambiguities and restructure the curriculum. The University has taken necessary actions based on the suggestions on many occasions to revise the curriculum for optimal learning outcomes.

### **2. Change of Syllabus of the Course BCA1C01**

The Department of Computer Science forwarded a letter to the Board of Studies on 24-01-2018 highlighting the difficulty in the revised syllabus and suggesting some modifications to it. They suggested organizing a workshop for faculty to revise the syllabus. The Board of Studies made necessary amendments in the syllabus and the new syllabus was implemented from the next year onwards.

**Enclosure 1.** [The request letter to modify the syllabus of the BCA Programme.](#)

**Enclosure 2.** [Syllabus of the Course BCA1C01 before and after the revision](#)

### **3. Change of Complementary course for BSc Physics**

As per the joint request of students, Alumni, and teachers forwarded to the University to change the complementary course of BSc Physics from Computer Science to Chemistry. The university approved the same and asked to obtain concurrence from the Government of Kerala for changing the complementary course.

**Enclosure 3.** Letter from the Principal to the University requesting a change of Complementary for the BSc Physics Programme

**Enclosure 4.** Approval letter from the University for the change of complementary

#### **4. Initiative for MSc Electronics Programme and MSc Physics Programme**

Considering requests from Alumni and with an objective to pursue new generation interdisciplinary programmes in the Arts and Science stream, the college forwarded a proposal to begin M.Sc. Electronics with Robotics and Fiber Instrumentation and M.Sc. Physics with planetary System. Based on this request, the University of Calicut granted a provisional affiliation to begin M.Sc. Electronics program for the academic year 2020-21. The Programme was commenced from 2020-21 academic year onwards in the college.

**Enclosure 5.** Proposal for initiating MSc Electronics Programme with Robotics and Fibre Instrumentation

**Enclosure 6.** Provisional affiliation order for MSc Electronics Programme from the University of Calicut

#### **5. Change of Complementary course for BA Mass Communication and Journalism**

Considering feedback from faculty and students, the Department of Mass Communication forwarded a request to change their complementary course from Economics to Indian Constitution and Political Science on 08-01-2021. As a result, the University of Calicut made necessary arrangements to change their complementary course from Economics to Indian Constitution and Political Science from 2020 admission onwards.

**Enclosure 7.** Letter from Principal to change Complementary course for BA Mass Communication and Journalism

**Enclosure 8.** Order from the university approving the change of Complementary course for BA Mass Communication and Journalism

#### **6. Request to modify the syllabus of BSc Mathematics and to Reschedule the University examination during the Covid situation.**

The Department of Mathematics accentuated a grave issue with the heaviness of the syllabus and tight schedule of the university examinations especially during the period of the COVID pandemic. As per the request, the university issued an order to give proper direction to exempt some portions and modify the syllabus for university examinations in the academic year 2021-22.

**Enclosure 9.** Request letter from the faculty of Mathematics to modify the syllabus and Exam schedule of the BSc Mathematics Programme

**Enclosure 10.** University order excepting some portions and modifying the syllabus of BSc Mathematics Programme

## **7. Change of Electives for MSc Statistics Programme**

PG Department of Statistics observed the demand for Statistical machine learning and its scope in the job market. A request has been made to the Registrar, University of Calicut, and Board of Studies in order to bring three options in complementary courses: Statistical Machine Learning I & II and Advanced Statistical Machine Learning on 25-5-2021. As a result, the university made necessary modifications to the syllabus of the MSc Statistics Programme.

**Enclosure 11.** Report on the involvement of faculty in the revision of the syllabus for the MSc Statistics Programme

**Enclosure 12.** Copy of E-mail communication of Principal with Registrar of the University of Calicut for revision of Elective courses of MSc Statistics

**Enclosure 13.** The copy of the order from the university regarding the new syllabus of MSC Statistics, incorporating the suggestions from Principal W M O Arts & Science College

## **8. Involvement of faculty in the syllabus re-structuring of BSc Physics Programme during Covid-19, as per request from students.**

Dr. Biju K G, as a Member of the Board of Studies for the BSc Physics Programme could actively engage in modifying the curriculum according to the prevailing situations.

- (1) As it was difficult to conduct practical examinations during the Covid period, the BOS recommended reducing the minimum number of experiments to be done for Practical Paper-II, and III for the core program. BOS prepared a revised syllabus for practical, and the University has approved the same.
- (2) In the Calicut University Curriculum, a study tour to a place of Scientific importance is compulsory, but in the context of Covid, BOS requested the University to allow the students for virtual tours to places of scientific importance. University has approved the same and, BOS in Collaboration with the Academy of Physics teachers, organized three such seminars on National Institutes. These Seminars are available on YouTube.
- (3) The syllabus permits the students to do experimental or theoretical projects. But in the Covid situation, the BOS advised the teachers and students to do theoretical projects such as review works, or other theoretical projects based on programming.
- (4) The University of Calicut has approved all these suggestions as per the U.O.No. 11769/2020/Admn Dated, 02.12.2020.

- (5) The BOS also revised the existing syllabus (2019 Revision) of two BSc Physics theory Papers after considering the grievances from teachers and students regarding the content of Core Course I - Methodology of Science and Basic Mechanics and Core Course II – Mechanics. These courses are renamed Mechanics-I and Mechanics-II in the revised syllabus (Ref: U.O.No. 6321/2020/Admn Dated, Calicut University. P.O, 07.07.2020).

**Enclosure 14.** Communications of the Board of Studies of the BSc Physics Programme with the University suggesting modification of the practical and study tours in the Covid-19 scenario.

**Enclosure 15.** Copy of the Order from the University regarding the modifications in the syllabus of the BSc Physics Programme

**Enclosure 16.** Screenshots of the Webinars arranged for students as part of the virtual tour.

## **9. Curriculum Restructuring Workshop – Electronics(Single Board)**

W M O Arts and Science College hosted a three-day workshop for the faculty of Electronics in various colleges under the University of Calicut organized by the Board of Studies (Single board) in Electronics from 20-5-2019 to 22-5-2019. As the Chairman of the Board, Dr Nibert Thomas Pallath, Associate Professor, W M O Arts and Science College, took the initiative to coordinate the same. The syllabus of Undergraduate and Postgraduate programmes was redesigned based on an OBE pattern and feedback from faculty, with effect from 2019 admissions onwards. As part of the same advanced learners and slow learners were considered and additional courses such as Ability Enhancement Courses (AEC), Discipline Specific Electives (DSE), Open Courses, etc. were introduced without affecting the existing workload of teachers.

**Enclosure 17.** Report of the Curriculum Restructuring Workshop – Electronics

[Link To the Syllabus of BSc Electronics Programme w e f 2019 admission - http://docs.uoc.ac.in/website/syllabus/2020-06-08%2013:06:50\\_sy1933.pdf](http://docs.uoc.ac.in/website/syllabus/2020-06-08%2013:06:50_sy1933.pdf)

### **Enclosures:**

1. Request letter to modify the syllabus of the BCA Programme
2. Syllabus of the Course BCA1C01 before and after revision
3. Letter from the Principal to the University requesting a change of Complementary for the BSc Physics Programme
4. Approval letter from the University for the change of complementary course for BSc Physics
5. Proposal for initiating MSc Electronics Programme with Robotics and Fibre Instrumentation
6. Provisional affiliation order for MSc Electronics Programme from the University of Calicut

7. Letter from Principal to change Complementary course for BA Mass Communication and Journalism
8. Order from the university approving the change of Complementary course for BA Mass Communication and Journalism
9. Request letter from the faculty of Mathematics to modify the syllabus and Exam schedule of the BSc Mathematics Programme
10. University order excepting some portions and modifying the syllabus of BSc Mathematics Programme
11. Report on the involvement of faculty in the revision of the syllabus for MSc Statistics Programme
12. Copy of E-mail communication of Principal with Registrar of the University of Calicut for revision of Elective courses of MSc Statistics
13. The copy of the order from the university regarding the new syllabus of MSC Statistics, incorporating the suggestions from Principal W M O Arts & Science College
14. Communications of the Board of Studies of the BSc Physics Programme with the University suggesting modification of the practical and study tours in the Covid-19 scenario.
15. Copy of the Order from the University regarding the modifications in the syllabus of BSc Physics Programme
16. Screenshots of the Webinars arranged for students as part of virtual tour.
17. Report of the Curriculum Restructuring Workshop - Electronics

**ENCLOSURES**



**DEPARTMENT OF COMPUTER SCIENCE  
WMO ARTS & SCIENCE COLLEGE, MUTTIL**

*"education and some more"*

**Affiliated to University of Calicut  
(Aided by Govt. of Kerala)**

P.O MUTTIL, WAYANAD, KERALA-673122

Phone: 04936-203382 ( Office)  
04936-207532 ( Principal)  
email: wmo@college@unical.com  
website: www.wmocollge.ac.in



From

Suma. N,  
Asso. Professor,  
Department of Computer Science,  
W.M.O. College, Muttill,  
&  
Rasheed N K,  
Asst. Professor,  
Department of Computer Science,  
W.M.O. College, Muttill,

24.01.2018

To

Dr. Illias,  
HOD of Computer Science & Chairman Board of Studies,  
Sullamussalam Science College, Areekkode,  
University of Calicut.

Sir,

In the academic year 2014-15, a new syllabus for the BCA (CUCBCSS) course was implemented. More than 90% of the students enrolled in this program come from a Commerce background, which means they are not familiar with the Mathematics syllabus of classes +1 and +2. Additionally, those students who completed their +2 Commerce with high scores usually prefer to continue their studies in the Commerce field.

Unfortunately, the current input of students for the BCA course is below average. The difficulty level of the subject "MATHEMATICAL FOUNDATION OF COMPUTER APPLICATIONS" (paper BCA 1C 01) poses challenges in teaching it to BCA students. The syllabus consists of five modules, and therefore, I kindly request you to consider revising it.

On the other hand, in the BSc Computer Science program, Electronics is one of the complementary courses. In the fourth semester, there are three practical examinations (one for Electronics and two for Computer Science core subjects). However, the BCA program is structured in a way that only one practical examination is held at the end of the fourth semester. Some of the papers introduced in the IV semester are considered inadequate.

Hence, I kindly request you to organize a workshop to properly design this course. I humbly request you to bring these matters to the attention of the University authorities and take the necessary actions.

Thank You

Yours faithfully

SUMA N

RASHEED N K





File Ref.No.4180/GA - IV - J1/2012/CU



**UNIVERSITY OF CALICUT**

**Abstract**

Bachelor of Computer Application – under CUCBCSS UG 2014 – Scheme and Syllabus approved -implemented w.e.f 2014 admission onwards- Orders issued.

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**G & A - IV - J**

U.O.No. 6833/2014/Admn  
16.07.2014

Dated, Calicut University.P.O,

- 
- Read:-*1. U.O. No. 3797/2013/CU, dated 07.09.2013 (CBCSS UG Modified Regulations) (File.ref.no. 13752/GA IV J SO/2013/CU).  
2. U.O. No. 5180/2014/Admn, dated 29.05.2014 (CBCSS UG Revised Regulations)(File.ref.no. 13752/GA IV J SO/2013/CU).  
3. Item No: 1 of the minutes of BOS in Computer Science UG held on 28.1.14  
4. Minutes of the meeting of Faculty of Science held on 3.2.14  
5. Item II (i). of the minutes of Academic Council held on 20.3.14

**ORDER**

The Modified Regulations of Choice Based Credit Semester System for UG Curriculum w.e.f 2014 was implemented under the University of Calicut vide paper read as (1). The Revised CUCBCSS UG Regulations has been implemented w.e.f 2014 admission, for all UG programme under CUCBCSS in the University, vide paper read as (2).

As per The paper read as (3) the Scheme and Syllabus of Bachelor of Computer Application under Choice based Credit Semester System (UG) was approved by the Board of Studies in Computer Science UG. As per paper read as(4) above, the Faculty of Science has approved this minutes and as per paper read as 5 above ,the AC has approved it.

Sanction has therefore been accorded for implementing the Scheme and Syllabus of Bachelor of Computer Application with effect from 2014 admission onwards.

Orders are issued accordingly. Revised Syllabus appended.

Muhammed S

Deputy Registrar

To

1. All Affiliated Colleges/SDE/Dept.s/Institutions under University of Calicut.
2. The Controller of Examinations, University of Calicut.
3. The Director SDE, University of Calicut.

Forwarded /By Order  
Section Officer

## BCA1C01 -- Mathematical Foundation of Computer Applications

**Course Number:** 5

**Contact Hours:** 4T

**Number of Credits:** 3

**Number of Contact Hours:** 60T

**Course Evaluation:** Internal – 20 Marks + External – 80 Marks

**Aim of the Course:** To lay mathematical foundations for learning Computer Science.

**Objectives of the Course:**

- ✚ To learn the basic principles of linear algebra and vectors.
- ✚ To learn the basic principles of differential and integral Calculus
- ✚ To learn the mathematical modelling using ordinary and partial differential equations

**Prerequisites:** Mathematics at +2 level

**Course Outline**

### UNIT I (12T)

## BCA1C01 -- Mathematical Foundation of Computer Applications

Linear Algebra and Vector Calculus: Matrices: Matrix definition, order of a matrix, types of matrices, addition of matrices, multiplication of matrices, various kinds of matrices, transpose of a matrix, linear system of equations and solutions using gauss elimination, linear independence and rank, determinants, inverse, Eigen values. Vectors: Vectors in 2- and 3-space, dot and cross products,

### UNIT II (12T)

Differentiation: Derivative at a point, Derivative of a Function, Differentiation from first principle, Differentiation of important functions, Product rule, Quotient rule, Differentiation of a function of a function (problem based), Higher order derivatives (Definition only)

### **UNIT III (12T)**

Integration: Integral as Anti-derivative, Indefinite integral & constant of integration, Fundamental theorems, Elementary Standard results, Methods of Integration, Integration through Partial Functions, Integration by parts. Definite Integral: Evaluation by Substitution, Properties of definite integrals (Problem Based)

### **UNIT IV (12T)**

Formation of differential equations, order and degree of the differential equation, Ordinary Differential Equations: First-Order ODE's, Solution of first order differential equations by separation of variables, Homogeneous first order differential equations and their solutions, linear first order differential equations and solutions.

### **UNIT V (12T)**

Second Order Linear ODE's, linear second order differential equation with constant coefficients and solutions. Higher Order Linear ODE's, Partial Differential Equations.

### **References:**

1. *Advanced Engineering Mathematics*, Erwin Kreyszig, Wiley
2. *Higher Engineering Mathematics*, John Bird, Elsevier Direct
3. *Skills in Mathematics: Algebra*, S.K.Goyal
4. *Higher Engineering Mathematics*, B S Grewal, Khanna Publishers
5. *Higher Engineering Mathematics*, Ramana, Tata McGraw Hill
6. *Engineering Mathematics*, P Kandasamy, S. Chand Group



UNIVERSITY OF CALICUT

**Abstract**

General and Academic - Faculty of Science - Syllabus of Bachelor of Computer Application (B.C.A) Programme under CBCSS UG Regulations 2019 with effect from 2019 Admission onwards - Implemented- Orders Issued.

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**G & A - IV - J**

U.O.No. 11088/2019/Admn

Dated, Calicut University.P.O, 21.08.2019

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*Read:-*1. U.O.No. 4368/2019/Admn dated 23.03.2019

2. The minutes of the meeting of the Board of Studies in Computer Science and Application UG held on 12.06.2019

3. Item No. 1.29 in the minutes of the meeting of Faculty of Science held on 27.06.2019

ORDER

The Regulations for Choice Based Credit and Semester System for Under Graduate (UG) Curriculum- 2019 (CBCSS UG Regulations 2019) for all UG Programmes under CBCSS-Regular and SDE/PrivateRegistration w.e.f. 2019 admission has been implemented vide paper read first above.

The meeting of Board of Studies in Computer Science and Application UG held on 12.06.2019 has approved the Syllabus of Bachelor of Computer Application (B.C.A) Programme in tune with the new CBCSS UG Regulations with effect from 2019 Admission onwards, vide paper read second above.

The Faculty of Science at its meeting held on 27.06.2019 has approved the minutes of the meeting of the Board of Studies in Computer Science and Application UG held on 12.6.2019, vide paper read third above.

Under these circumstances , considering the urgency, the Vice Chancellor has accorded sanction to implement the Scheme and Syllabus of Bachelor of Computer Application (B.C.A) Programme in accordance with the new CBCSS UG Regulations 2019, in the University with effect from 2019 Admission onwards, subject to ratification by the Academic Council.

The Scheme and Syllabus of Bachelor of Computer Application (B.C.A) Programme in accordance with CBCSS UG Regulations 2019, is therefore implemented in the University with effect from 2019 Admission onwards.

Orders are issued accordingly. (Syllabus appended)

Biju George K

Assistant Registrar

To

The Principals of all Affiliated Colleges

Copy to: PS to VC/PA to PVC/ PA to Registrar/PA to CE/JCE I/JCE IV/DoA/EX and EG Sections/GA I F/CHMK Library/Information Centres/SF/DF/FC

Forwarded / By Order

Section Officer

## BCA1C01 – Mathematical Foundation for Computer Applications

**Course Number:** 5

**Contact Hours per Week:** 4

**Number of Credits:** 3

**Number of Contact Hours:** 64 Hrs.

**Course Evaluation:** Internal – 15 Marks + External – 60 Marks

### Objectives

- To learn the basic principles of linear algebra and vectors.
- To learn the basic principles of differential and integral Calculus.
- To learn mathematical modeling using ordinary and partial equations.

### Prerequisites

- Basic mathematical knowledge

### Course Outline

#### UNIT I (12T)

Linear Algebra and Vector Calculus: Matrices: Matrix definition, order of a matrix, types of matrices, addition of matrices, multiplication of matrices, various kinds of matrices, transpose of a matrix.

#### UNIT II (12T)

Linear system of equations and solutions using gauss elimination , Gauss Jordan, and Gauss Siedel methods.

Linear independence and rank , determinants, inverse, Eigen values. Vectors: Vectors in 2- and 3-space, dot and cross products.

#### UNIT III (14T)

Differentiation: Limits (definition only). Derivative at a point, Derivative of a Function, Differentiation from first principle, Differentiation of important functions, Product rule, Quotient rule, Differentiation of a function of a function (problem based)

#### UNIT IV (12T)

Integration: Integral as Anti-derivative, Indefinite integral & constant of integration, Fundamental theorems, Elementary Standard results.

**UNIT V (14T)**

Methods of Integration, Integration through Partial Functions , Integration by parts. Definite Integral: Evaluation by Substitution, Properties of definite integrals (Problem Based)

**Textbooks**

1. Advanced Engineering Mathematics, Erwin Kreyszig, Wiley

**References:**

1. Higher Engineering Mathematics, John Bird, Elsevier Direct
2. Skills in Mathematics: Algebra, S.K.Goyal
3. Higher Engineering Mathematics, B S Grewal, Khanna Publishers
4. Higher Engineering Mathematics, Ramana, Tata McGraw Hill
5. Engineering Mathematics, P Kandasamy, S. Chand Group



## W.M.O. ARTS & SCIENCE COLLEGE

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P.O. MUTTIL, WAYANAD, KERALA-673122

Phone : 04936-203382 (

04396- 207532 (

e-mail : [wmocollege@gmail.com](mailto:wmocollege@gmail.com)

website : [www.wmocollege.ac.in](http://www.wmocollege.ac.in)



Ref: No.B2/190/WMOC/2021

Date: 7.2021.....

From

The Manger  
WMO Arts & Science College, Muttil

To

The Principal Secretary  
Higher Education Department  
Thiruvananthapuram.  
(Through the Deputy Director of Collegiate Education, North Zone, Kozhikode)

Sir,

Sub: Request to change the BSc physics program to BSc applied physics with Chemistry as second Complementary subject –reg.

Ref: No.4406/CDC-A1/2015/CU Calicut University dated 10.7.2021

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WMO Arts & Science College is an aided college affiliated with the University of Calicut. BSc Physics is one of the aided courses sanctioned in 1995, the year of inception of the college, with Mathematics and Computer science as complementary subjects. In Wayanad district seven colleges are now offering the BSc physics program, where none of the colleges is offering an applied physics program. So, students of this area with a scientific bend of mind will lack the opportunity to improve their conceptual knowledge and analytical skill in the subject by spending more time with physics subjects.

Secondly, in most of the colleges under Calicut University, the complementary subjects for BSc Physics (Main) course are Mathematics and Chemistry. Being Computer science as the complementary subject instead of Chemistry, our BSc Physics graduates are facing the following problems.

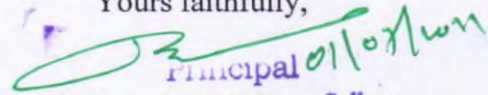
1. As per the qualification prescribed by the Public Service Commission for the physical science teaching positions in High schools, the applicants should learn Physics and Chemistry for the BSc program. Hence, Students having BSc Physics with Computer science as complementary are not eligible.
2. The admission to the MSc physics program in many central universities (For example, Pondicherry University) is restricted to graduates in BSc Physics (Main) with Mathematics and Chemistry as complementary subjects.

As a result, the Physics graduates from our college are unable to apply for the post of high school assistants in physical science and MSc physics courses in many Universities. If the complementary subject is changed from Computer science to Chemistry, it will not affect the posts of computer Science faculty members currently working in the college. In the same way if

the conventional BSc physics program is changed to BSc applied physics, workloads of existing language teachers will not be affected.

In the above circumstances, and as per the direction of the Registrar vide reference letter, University co Calicut, I request you to forward your recommendation letter to Higher Education Department to change the BSc Physics (Main) program with Mathematics and Computer science as complementary subjects to BSc Physics (Main) course with Mathematics and Chemistry at your earliest.

Yours faithfully,

  
Principal

W.M.O. Arts & Science College  
Muttill. P.O., Wayanad







4/7/2021  
Immediate

12/07/2021  
12/7.2.21



UNIVERSITY OF CALICUT  
CDC-A

No. 4406/CDC-A1/2015/CU

Calicut University.P.O  
Dated: 10.07.2021

From The Registrar  
To The Principal,  
WMO Arts and Science College,  
P.O. Muttill,  
Wayanad - 673 122.

Sir,

Sub:- CDC -- Changing the complementary courses offered for B.Sc Physics -- concurrence from Govt. -- requested -- reg.

Ref:- 1. E-mail from the Principal, W M O Arts & Science College, Muttill, Wayanad received on 28.05.2021.

2. Remarks obtained from the G & A IV Branch on 01.07.2021.

With reference to the above, I am to inform you that B.Sc. Physics is an aided programme with permanent affiliation and hence concurrence from Govt. of Kerala is necessary for change in complementary course from Computer Science to Chemistry for which you have applied for vide letter cited first.

I am to further inform you that , as per the syllabus of B.Sc. Physics programme in the colleges affiliated to the University, w.e.f 2020 admissions, Mathematics is the first Complementary Course and Chemistry is one of the second complementary courses.

Therefore, you are requested to make necessary arrangements for obtaining concurrence from Government of Kerala for changing the complementary course offered for B.Sc Physics programme. Further action on your request can be taken only after obtaining concurrence from the Govt.

Yours faithfully

**Thabeetha George C**  
Deputy Registrar  
(For The Registrar)



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*"education and some more"*

P.O. MUTTIL, WAYANAD, KERALA - 673122

Phone : 04936-20338  
04936-207532 (Principal)

e-mail : wocollege@gmail.com  
website: www.wocollege.ac.in



**Ref:**

No:B2-200/WMOC/2020

**Date:**.....

17.9.2020

From

The Principal

To

The Registrar,  
University of Calicut.

Sir,

Sub: W.M.O.Arts & Science College, Muttill-Application  
for Starting additional new generation interdisciplinary  
programmes in Arts & Science stream- for the year 2020--  
forwarding- Reg.

Ref:-No.16636/CDC-A3/2020/Admn dated 16.9.2020

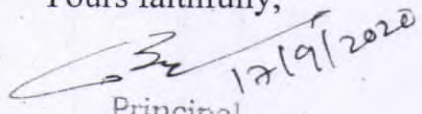
As per the reference cited, I am forwarding the application for starting the following Post Graduate courses under new generation interdisciplinary programmes in Arts & Science stream during the year 2020-21 along with the necessary documents.

1. M.Sc Electronics with Robotics, Fiber Optic Instrumentation, Advanced Sensors, Biomedical Engineering.
2. M.Sc Physics with Planetary Systems, Solar and Stellar Physics, Observational Techniques, Dynamics of Space bodies

Hence I request you to kindly accord sanction to the above courses at your earliest.

Encl:As Above

Yours faithfully,

  
Principal  
W.M.O. Arts & Science College  
Muttill. P.O., Wayanad



File Ref.No.187512/CDC-A2/2020/Admn (1)

UNIVERSITY OF CALICUT

Abstract

CDC -- Provisional Affiliation to innovative inter-disciplinary programmes at various Govt./Aided Arts & Science Colleges affiliated to University of Calicut for academic year 2020-'21 -- Granted -- Orders issued.

CDC-A

U.O.No. 1497/2021/Admn

Dated, Calicut University.P.O. 04.02.2021

- Read:-*
1. Letter No. B3/117/2020-HEDN dated 04.06.2020 from the Principal Secretary to Govt., Dept. of Higher Education.
  2. Letters No. B3/134/2020/HEDN dated 22.06.2020 & 02.07.2020 from the Principal Secretary to Govt., Dept. of Higher Education.
  3. Resolution of the meeting of the Syndicate held on 14.07.2020 vide Item No. 2020.631\*.
  4. Letter No.VC/2020/LR/80 (16636/CDC-A3/2020/Admn) dated 15.08.2020.
  5. Letter No.B3/207/2020-HEDN dated 09.09.2020 from the Principal Secretary to Govt., Dept. of Higher Education.
  6. Letter No. GS3-2334/2020 dated 27.08.2020 from the Principal Secretary to Governor, Kerala Raj Bhavan.
  7. Notifications No.16636/CDC-A3/2020/Admn dated 16.09.2020 & 22.09.2020.
  8. Letter No.B3/207/2020-HEDN dated 18.09.2020 from the Principal Secretary to Govt., Dept. of Higher Education.
  9. Resolution of the meeting of the Syndicate held on 25.09.2020 vide Item No. 2020.843\*.
  10. This office letters No. 16636/CDC-A3/2020/Admn dated 25.09.2020 & 12.10.2020
  11. Item No. 2020.951 of the minutes of the meeting of the Syndicate held on 27.10.2020 (Confirmed vide Item No.2020,1021\* on 25.11.2020)
  12. G.O.(Ms)No.389/2020 HEDN dated 05.11.2020.
  13. Resolution of the meeting of the Syndicate held on 25.11.2020 vide Item No. 2020.1118\*.
  14. Letter No.VC/2020/LR/145 (No.187512/CDC- A2/2020/Admn) dated 05.12.2020.
  15. Letter No. GS3-3552/2020 dated 22.12.2020 from Kerala Raj Bhavan.
  16. Minutes of the meeting of Principals of applicant colleges held on 07.12.2020
  17. U.O. No. 12751/2020/Admn dated 18.12.2020.
  18. Minutes of the meeting of the Syndicate Sub-committee held on 12.01.2021.
  19. Resolution of the meeting of the Syndicate held on 30.01.2021 vide Item No.2021.130\*

ORDER

1. The Principal Secretary to Govt., Department of Higher Education has informed, vide letters cited:

second, that Government have announced in the Budget speech 2020-21, that innovative and interdisciplinary courses will be introduced in affiliated colleges. An Expert Committee was constituted with Prof. Sabu Thomas as the Chairman, to make recommendations on new programmes. It was also informed that Government have requested the Hon'ble Chancellor to extend the date of submission of applications for new courses till 31/08/2020 and requested the University to submit separate proposals to the Hon'ble Chancellor for seeking extension of time.

2. The Hon'ble Chancellor was requested vide letter cited fourth, to grant extension of last date for submission of application for starting innovative interdisciplinary programmes in affiliated colleges for the academic year 2020-21 to 31st of August 2020 as resolved by the Syndicate at its meeting held on 14.07.2020 vide paper read as 3rd.

3. The Principal Secretary to Govt., Department of Higher Education, vide letter read as fifth, directed to call for applications from accredited aided and Govt. colleges and unaccredited aided colleges started by Scheduled Tribe Trusts, for commencement of innovative inter-disciplinary courses as suggested by the Committee constituted for the purpose.

4. The Principal Secretary to Governor, vide letter cited sixth, has informed that if the Vice Chancellor intends to invite applications for starting new generation courses in affiliated colleges during the academic year 2020-21 on the basis of Government letter or otherwise, the Vice Chancellor may exercise first, the independent powers conferred on him as per Section 10(13) of the Calicut University Act, 1975. Thereafter, the Vice Chancellor may process and refer the eligible cases to the Hon'ble Chancellor for extension of the time period within which the Syndicate shall consider the applications for affiliation as per Section 56 (2) of the Calicut University Act, 1975. Also, in view of the above, the Vice Chancellor may take necessary action and keep that office informed about the action taken in the matter.

5. In compliance with the above, a notification was issued inviting applications from NAAC accredited Aided and Government colleges and Aided colleges started by Scheduled Tribe Trusts, even if unaccredited, within the jurisdiction of the University of Calicut, for starting additional innovative interdisciplinary programmes in arts and science stream for the academic year 2020-21.

6. The Government, vide letter read as eighth, have extended the date of receiving recommendations of the University on applications for commencing the programmes to 25.09.2020.

7. The applications received have been considered by the Syndicate and resolved, vide paper read as ninth, to forward recommendations for commencement of innovative interdisciplinary programmes in Govt./Aided Arts & Science Colleges to the Government and thus recommendations of the University were forwarded to the Government, vide letters read as tenth, for obtaining views of the Government as stipulated in Calicut University First Statutes, 1977.

8. Administrative Sanction was accorded by the Govt. of Kerala for starting innovative interdisciplinary programmes at Govt./Aided Arts & Science Colleges affiliated to University of Calicut during the academic year 2020-'21, vide G.O. read as twelfth, based on the recommendations of the University.

9. As directed by the Hon'ble Chancellor, vide letter read as sixth, eligible applications along with recommendations were forwarded to the Hon'ble Chancellor vide letter read as fourteenth for extending the period for consideration of applications by the Syndicate. As permission was granted by the Hon'ble Chancellor vide letter read as fifteenth, the Syndicate has considered applications for

starting innovative interdisciplinary programmes.

10. As decided by the Syndicate vide paper read as thirteenth, a meeting of Principals of applicant colleges was held on 07.12.2020 and as per U.O. read as seventeenth, it has been ordered to grant provisional affiliation, in first phase, to the programmes for which approved syllabi are available in the University. Meanwhile, General & Academic IV Branch has informed that certain programmes for which approved syllabi are not available can be started with change in nomenclature, if the college concerned are willing to, and the matter was communicated to the Colleges concerned.

11. The Principals of the Colleges have uploaded required documents such as affidavit in prescribed format and in stamp paper worth ₹.200/- and challan receipts towards remittance of affiliation fee @ ₹2760/- (Rupees two thousand seven hundred and sixty only) for Govt. Colleges and ₹5515/- (Rupees five thousand five hundred and fifteen only) for Aided Colleges, for granting Provisional Affiliation to innovative Interdisciplinary programmes for the academic year 2020-'21, in Centralized College Portal, in response to the press release dated 19.01.2021.

12. The Syndicate, at its meeting held on 30.01.2021 has resolved, vide item No.2021.130 to grant provisional affiliation to the programmes having approved syllabi in the University, provided the colleges concerned have uploaded the required documents.

13. Considering the matter in detail, sanction has been accorded by the Vice Chancellor, on 03/02/2021, to implement the above resolution of the Syndicate.

14. Orders are, therefore, issued to grant provisional affiliation to new programmes in Govt./Aided Arts & Science Colleges affiliated to University of Calicut during the academic year 2020-21 as shown below.

No.	College	Programme	Electives/Complementary course, if any	Intake
<b>Wayanad</b>				
1	N.M.S.M. Govt. College, Kalpetta	M.A. History	World History	15
2	W.M.O. Arts & Science College, Muttill	M.Sc. Electronics	Robotics, Fibre Optic Instrumentation, Advanced Sensors, Bio Medical Engineering	10
<b>Palakkad</b>				
3	Govt. Arts & Science College, Tholannur	M.Sc. Geography		10
4	Govt. Arts & Science College, Kozhinjampara	B.A. Tamil Language & Literature		24
5	Govt. Arts & Science College, Pathrippala	M.Com. with Taxation		15
6	M.E.S. Kalladi College, Mannarkkad	M.Sc. Forensic Science		10
7	M.P.M.M.S.N. Trust	M.Sc. Geology	Remote sensing and GIS: Aerial Photogrammetry and Photography,	10

	College, Shornur		Cartography & Global Positioning System, Geographical Information System	
8	Mercy College, Palakkad	M.Sc Zoology	Insect Morphology, Insect Ecology, Insect Pathology, Storage Entomology, Commercial Entomology, General Acarology	10
<b>Kozhikode</b>				
9	Govt. Arts & Science College, Madappally	M.A. Economics		15
10	S.A.R.B.T.M. Govt. College, Koyilandy	B.Sc. Mathematics		24
11	Govt. College, Kodenchery	M.Sc. Zoology	Insect Morphology, Insect Ecology, Insect Pathology, Storage Entomology, General Acarology, Commercial Entomology	10
12	Dr. B.R.Ambedkar Memorial Govt. Arts & Science College, Balussery	M.A. Development Economics		15
13	Govt. Arts & Science College, Nadapuram, Kallachi	M.A. English Language & Literature		15
14	Govt. Arts & Science College, Kunnamangalam	M.Sc. Mathematics		15
15	C H Muhammed Koya Memorial Govt. Arts & Science College, Koduvally	M.Sc. Statistics		10
16	St. Joseph's College (Autonomous), Devagiri	1. B.Sc. Mathematics & Economics (Double Main) 2. M.Sc. Psychology		24 10
17	Malabar Christian College	M.A. Econometrics	Statistics	15
18	Zamorin's Guruvayurappan College	M.Sc. Physics	Mathematical & Computational Sciences, Bio-Sciences, Quantum Concept of Nano Structures, Nano Science & Molecular Structure	10
<b>Malappuram</b>				
	Govt. Arts & Science			

19	College, Nilambur, Pookkottupadam	M.Sc. Geography		10
20	Govt. Arts & Science College, Mankada	M.Sc. Psychology		10
21	Govt. Arts & Science College for Women, Malappuram	M.Sc. Botany		10
22	Amal College of Advanced Studies, Nilambur	B.Sc. Mathematics & Physics (Double Main)		24
23	E.M.E.A. College of Arts & Science, Kondotty	B.Sc. Mathematics & Physics (Double Main)		24
24	Ambedkar College of Arts & Science, Wandoor	M.A. Development Economics		15
25	Mar Thoma College, Chungathara	M.Sc. Physics	Applied Mathematics, Positional Astronomy, Space Physics, Plasma Physics and Quantum Mechanics	10
<b>Thrissur</b>				
26	Govt. Arts & Science College, Cheiakkara	M.Com. with Cost Management		15
27	Sacred Heart College, Chalakkudy	M.Sc. Zoology	Structure, Physiology, Development and Classification of Animals	10
28	M.E.S. Asmabi College, P. Vemballur	M.Sc. Physics	Mathematical & Computational Sciences Bio-Sciences, Quantum Concept of Nano Structures, Nano Science & Molecular Structure	10
29	Vimala College (Autonomous)	M.Sc. Zoology	Structure, Physiology, Development and Classification of Animals	10
30	Sree Kerala Varma College, Thrissur	M.A. Hindi Language & Literature		15

15. Admission to the aforementioned programmes for the academic year 2020-21 shall be made strictly as per the time schedule prescribed and also as per the directions to be obtained from the Directorate of Admissions regarding procedure of admission and other statutory obligations.

16. Provisional affiliation granted is subject to the following terms and conditions:

- Affiliation granted is strictly provisional and only for the

apply for Continuation of Provisional Affiliation for the ensuing academic year by remitting the fee fixed by the University. Admission to the next academic year shall be made only after obtaining prior permission from the University.

- As stipulated in G.O (Ms)No.389/2020/HEDN dated 05.11.2020, no post creation shall be allowed for these courses till 2025. Classes should be run with guest faculties only.
- The management should abide by the provisions of the University Act, Statutes and Regulations of the University with regard to admission of students, collection of fee etc.
- Selection and admission shall be made only on the basis of the rules and regulations of the University/Government and on the directions issued by the University/Government from time to time, failing which affiliation granted will automatically be cancelled.
- Conduct of University Examinations of any sort including that of SDE Examinations is compulsory and binding on all Colleges affiliated to the University of Calicut.
- The Principal shall strictly follow the approved syllabii, which is available in the University website(www.uoc.ac.in) for selecting the complementary/common courses.
- In the light of the directions of the Supreme Court of India in WP(C) No. 656/1998, the Institution shall take appropriate measures for prevention of ragging in any form. In case of failure to prevent such instances, appropriate action including withdrawal of affiliation of the College will be initiated.

Vinod N Neekampurath

Assistant Registrar

To

1. The Principals concerned.
2. The Director, Directorate of Admissions.

Copy to : 1. The Principal Secretary to Govt., Higher Education Department,  
Thiruvananthapuram

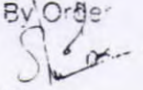
2. The Director of Collegiate Education, Thiruvananthapuram

3. The Deputy Director of Collegiate Education, Kozhikode/Thrissur

4. CDC - A, D, E and G sections

5. PS to VC/PA to R/PA to CE/All JCEs in the Pareeksha Bhavan/DigitalWing/DSW/DPE/JD.  
KSAD/JR GA IV/SF

Forwarded / By Order

  
Section Officer



## ENCLOSURE-7



**W.M.O. ARTS & SCIENCE COLLEGE**

*"education and some more"*

Affiliated to University of Calicut

(Aided by Govt. of Kerala)

P.O. MUTTIL, WAYANAD, KERALA-673122

Phone : 04936-203382 (O)

04396- 207532 (P)

e-mail : [wmocollege@grmail.com](mailto:wmocollege@grmail.com)

website : [www.wmocollege.ac.in](http://www.wmocollege.ac.in)



Ref:

Date:.....

No.8/WMOC/2021

8.1.2021

From

The Principal

To

The Registrar,  
University of Calicut

Respected Sir,

I am writing this request to your good office for a change in the complimentary course of the B.A. Mass communication program.

The complementary courses already opted for the program were English and Economics. The teachers, as well as students, consider the Indian Constitution and Political science as a better option than Economics as one of the complementary to Mass communication. Our experience also reveals that the students find it difficult to grasp Economics results in low-grade points in the complementary subject.

In the above circumstances, I request your immediate action to change the complementary subject Economics to Indian Constitution and Political science and to continue English as the second complementary subject with effect from 2020 admission.

Anticipating your favourable decision at your earliest,

Yours truly

  
Principal

W.M.O. Arts & Science College  
Muttill. P.O., Wayanad



BA M & S cum  
Complimentary Aug  
Orel

UNIVERSITY OF CALICUT

Abstract

സി ഡി സി -- വയനാട്, മുട്ടിൽ, W.M.O. ആർട്സ് & സയൻസ് കോളേജിലെ ബി.എ. ജേർണലിസം & മാസ്റ്റ് കമ്മ്യൂണിക്കേഷൻ പ്രോഗ്രാമിന്റെ ഒരു കോംപ്ലിമെന്ററി കോഴ്സായ Essentials of Economics, 2020 അഡ്മിഷൻ മുതൽ Indian Constitution & Politics ആയി മാറ്റം വരുത്തുന്നത് -- ഇനം നമ്പർ 2021.630\* സിണ്ടിക്കേറ്റ് തീരുമാനം -- നടപ്പിലാക്കിക്കൊണ്ട് ഉത്തരവ് പുറപ്പെടുവിക്കുന്നു .

CDC-A

U.O.No. 7530/2021/Admn

Dated, Calicut University.P.O, 03.08.2021

- Read:-1. 17.07.2015 തീയതിയിലെ 7749/2015/Admn നമ്പർ സർവകലാശാല ഉത്തരവ് .  
 2. 05.03.2020 തീയതിയിലെ 2942/2020/Admn നമ്പർ സർവകലാശാല ഉത്തരവ് .  
 3. വയനാട്, മുട്ടിൽ, W M O ആർട്സ് & സയൻസ് കോളേജിലെ പ്രിൻസിപ്പാളിന്റെ 08.01.2021 തീയതിയിലെ അപേക്ഷ .  
 4. 16.07.2021 തീയതിയിൽ നടന്ന സിണ്ടിക്കേറ്റ് യോഗത്തിന്റെ ഇനം നമ്പർ 2021.630\* തീരുമാനം.

ORDER

- കാലിക്കറ്റ് സർവകലാശാലയിൽ അഫിലിയേറ്റ് ചെയ്തിട്ടുള്ള വയനാട്, മുട്ടിൽ, W.M.O. ആർട്സ് & സയൻസ് കോളേജിൽ 2015-'16 അധ്യയന വർഷം മുതൽ 24 കുട്ടികൾക്ക് പ്രവേശനാനുമതി നൽകിക്കൊണ്ട് ബി.എ. ജേർണലിസം & മാസ്റ്റ് കമ്മ്യൂണിക്കേഷൻ പ്രോഗ്രാമിന് പരാമർശം(1) പ്രകാരം താത്കാലിക അംഗീകാരം നൽകുകയുണ്ടായി .
- പരാമർശം (2) പ്രകാരം 2020-'21 അധ്യയന വർഷത്തിൽ പ്രസ്തുത പ്രോഗ്രാമിന് താല്ക്കാലിക അംഗീകാരം പുതുക്കി നൽകിയിട്ടുണ്ട്.
- W.M.O. ആർട്സ് & സയൻസ് കോളേജിലെ പ്രിൻസിപ്പാൾ പരാമർശം (3 ) പ്രകാരം മേൽ പറഞ്ഞ പ്രോഗ്രാമിന്റെ ഒരു കോംപ്ലിമെന്ററി കോഴ്സായ Essentials of Economics, 2020 അഡ്മിഷൻ മുതൽ Indian Constitution & Politics ആക്കി മാറ്റാനുള്ള ഫീസായ ₹ 1655/- (ആയിരത്തി അറുനൂറ്റി അൻപത്തിയഞ്ചു രൂപ മാത്രം) 21.01.2021 തീയതിയിലെ 211092698 നമ്പർ ചലാൻ മുഖേന അടച്ചുകൊണ്ട് അപേക്ഷിച്ചിരുന്നു.
- സർവകലാശാലയുടെ മുൻകൂർ അനുമതിയില്ലാതെ അപേക്ഷയിൽ സൂചിപ്പിച്ച പ്രകാരം, 2020 അഡ്മിഷൻ മുതൽ കോംപ്ലിമെന്ററി കോഴ്സിൽ മാറ്റം വരുത്തിയതിനാൽ പ്രിൻസിപ്പലിനോട് ഇക്കാര്യത്തിൽ വിശദീകരണം ആവശ്യപ്പെടുകയും അതിനു മറുപടിയായി കോവിഡ് -19 മഹാമാരിയുടെ സാഹചര്യത്തിൽ വിഷയം സർവകലാശാലയിൽ അറിയിക്കാൻ സാധിക്കാതെ പോയതാണെന്നുള്ള വിശദീകരണവും ലഭിച്ചിരുന്നു. കൂടാതെ നിലവിലുള്ള സിലബസ് അനുസരിച്ചു ബി.എ. ജേർണലിസം & മാസ്റ്റ് കമ്മ്യൂണിക്കേഷൻ പ്രോഗ്രാമിന് 2020 അഡ്മിഷൻ മുതൽ English for Communication, Indian Constitution & Politics എന്നീ കോംപ്ലിമെന്ററി കോഴ്സുകൾ അനുവദനീയമാണെന്ന് ജനറൽ ആൻഡ് അക്കാഡമിക് ബ്രാഞ്ചിൽ നിന്നും അറിയിപ്പും ലഭിക്കുകയുണ്ടായി .
- ഈ വിഷയം സിണ്ടിക്കേറ്റിന്റെ പരിഗണനയ്ക്ക് സമർപ്പിക്കുന്നതിന് 14.07.2021ന് വൈസ് ചാൻസിലർ ഉത്തരവിട്ടിരുന്നു. തുടർന്ന് 16.07.2021 തീയതിയിൽ നടന്ന സിണ്ടിക്കേറ്റ് യോഗം 2021.630\* ഇനം നമ്പർ ആയി പ്രസ്തുത വിഷയം പരിഗണിക്കുകയും നിയമാനുസരണം കോംപ്ലിമെന്ററി കോഴ്സിന് മാറ്റം വരുത്തി പരാമർശം (4) പ്രകാരം അംഗീകാരം നൽകുകയും ചെയ്തു .
- മേൽ തീരുമാനം നടപ്പിൽ വരുത്തുന്നതിന് 28.07.2021 തീയതിയിൽ ബഹു: വൈസ് ചാൻസിലർ ഉത്തരവായിട്ടുണ്ട് .
- ആയതിനാൽ വയനാട്, മുട്ടിൽ, W.M.O. ആർട്സ് & സയൻസ് കോളേജിലെ ബി.എ. ജേർണലിസം & മാസ്റ്റ് കമ്മ്യൂണിക്കേഷൻ പ്രോഗ്രാമിന്റെ ഒരു കോംപ്ലിമെന്ററി കോഴ്സായ Essentials of Economics, 2020 അഡ്മിഷൻ മുതൽ Indian Constitution & Politics ആയി മാറ്റം വരുത്തി ഇതിനാൽ ഉത്തരവാകുന്നു .

Bindu T.Y  
Assistant Registrar

To  
പ്രിൻസിപ്പാൾ,  
W.M.O. ആർട്സ് & സയൻസ് കോളേജ്, മുട്ടിൽ, വയനാട്.

Copy to: PS to VC/ PA to R/ PA to CE/ JCE-2/ DR, G A IV/ DR, DoA/CDC-E Section/SF  
Forwarded / By Order  
Section Officer



DEPARTMENT OF MATHEMATICS  
WMO ARTS & SCIENCE COLLEGE

"education and some more"  
Affiliated to University of Calicut  
(Aided by Govt. of Kerala)

P.O. MUTTIL, WAYANAD, KERALA - 673122

Phone : 04936-203382 (Office)  
04936-207532 (Principal)

e-mail : [wmocollege@gmail.com](mailto:wmocollege@gmail.com)

website: [WWW.wmocollege.ac.in](http://WWW.wmocollege.ac.in)

ENCLOSURE-9

ഡോ.വിജി പോൾ  
അസോസിയേറ്റ് പ്രൊഫസർ  
ഗണിത ശാസ്ത്ര വിഭാഗം  
WMO കോളേജ്, മുട്ടിൽ



രജിസ്ട്രാർ  
കാലിക്കറ്റ് യൂണിവേഴ്സിറ്റി

വിഷയം : ആറാം സെമസ്റ്റർഗണിത ശാസ്ത്ര ബിരുദ പരീക്ഷയെ സംബന്ധിച്ച്.

സാർ,

യൂണിവേഴ്സിറ്റി കലണ്ടർ പ്രകാരം ആറാം സെമസ്റ്റർ ക്ലാസ്സുകൾ തുടങ്ങുന്നത് നവംബർ 1 നാണ്. നിലവിലെ അവസാന വർഷ ബിരുദ വിദ്യാർത്ഥികൾക്ക് മുൻ സെമസ്റ്റർ പരീക്ഷകളും, ലാബ് പരീക്ഷകളും പഠന അവധികളും പരീക്ഷ മൂല്യ നിർണ്ണയവും കാരണം പ്രവൃത്തി ദിവസങ്ങൾ വളരെ കുറച്ചു മാത്രമേ കിട്ടിയിട്ടുള്ളൂ. നവംബർ 1 ന് ശേഷം നടന്ന ഗണിത ശാസ്ത്ര ബിരുദ പരീക്ഷകളുടെ വിവരങ്ങൾ ചുവടെ ചേർക്കുന്നു.

III sem — 2/11/21 മുതൽ 10/11/21 വരെ

IV sem — 29/11/21 മുതൽ 7/12/21 വരെ

Lab exam — 20/12/21 മുതൽ 21/12/21 വരെ

III sem valuation.. 17/1/22 മുതൽ 19/1/22 വരെ

V sem — 31/1/22 മുതൽ 4/1/22 വരെ

ഇതിന് പുറമെ ഓപ്പൺ കോഴ്സ് എക്സാം, വരാനിരിക്കുന്ന IV sem മൂല്യനിർണ്ണയ ക്യാമ്പ്, ഓരോ പരീക്ഷകൾക്കും കൂട്ടികൾക്ക് നൽകുന്ന പഠനാവധികളും.

വിദ്യാർത്ഥികളുടെ ഉപരിപഠന അവസരങ്ങൾ നഷ്ടപ്പെടാതിരിക്കുന്നതിനാണ് പ്രഥമ പരിഗണന എന്നറിയാം. എന്നിരുന്നാലും കോവിഡ് സാഹചര്യവും വിദ്യാർത്ഥികൾ അനുഭവിക്കുന്ന മാനസിക പ്രയാസങ്ങളും മനസ്സിലാക്കിക്കൊണ്ട് രണ്ട് ആവശ്യങ്ങൾ മുന്നോട്ട് വക്കട്ടെ.

- 1) ആറാം സെമസ്റ്റർ പരീക്ഷ മെയ് ആദ്യ വാരം നടത്തുക. ( എന്നാൽ പോലും മൂല്യനിർണ്ണയം നടത്തി മെയ് അവസാനത്തോടെ റിസൾട്ട് പുറത്ത് വിടാനാവും )
- 2) നഷ്ടപ്പെട്ട അക്കാദമിക ദിവസങ്ങളും BSc മാത്സ് ന്റെ പുതുക്കിയ സിലബസ് വിദ്യാർത്ഥികൾക്ക് ഓവർ ലോഡ് ആണ് എന്നതും പരിഗണിച്ചുകൊണ്ട് ഫോക്കസ് ഏരിയ നിശ്ചയിക്കുകയോ 20% എങ്കിലും വെട്ടിച്ചുരുക്കുകയോ ചെയ്യുക. (V sem ൽ ഇപ്രകാരം ചെയ്തിട്ടുള്ളത് ശ്രദ്ധയിൽ പെടുത്തുന്നു order no.7007/2021/admn dated 14/7/2021)

ആവശ്യങ്ങൾ അനുഭാവപൂർവ്വം പരിഗണിക്കുമെന്ന വിശ്വാസത്തോടെ എല്ലാ അവസാന വർഷ ഗണിത ശാസ്ത്ര വിദ്യാർത്ഥികൾക്കും പരിപിക്കുന്ന അധ്യപകർക്കും വേണ്ടി അഭ്യർത്ഥിക്കുന്നു.

**Dr. VIJI PAUL**  
Associate Professor & Head  
Department of Mathematics  
W.M.O.Arts & Science College  
Muttill.P.O, Wayanad - 673 122



## UNIVERSITY OF CALICUT

**Abstract**

General & Academic -B.Sc Mathematics Programme -Recommendations of the Board of Studies in Mathematics UG to exempt the Questions from some areas of the syllabus of BSc Mathematics programme w.e.f 2019 admns from the University examinations- For 2019 admission students due to Covid 19 pandemic situations -Implemented - Subject to ratification of Academic Council - Orders Issued.

**G & A - IV - J**

U.O.No. 7007/2021/Admn

Dated, Calicut University.P.O, 14.07.2021

- Read:-*1) U.O.No. 8857/2019/Admn Dated 05.07.2019  
 2) Memorandum from Sri. Muhammed.V.N  
 3) Minutes of the meeting of Board of Studies in Mathematics, Dated 03.07.2021  
 4) Remarks of the Dean, Faculty of Science, Dated 09.07.2021  
 5) Orders of the Vice Chancellor in the file of even no, Dated 13.07.2021

**ORDER**

1. The scheme and syllabus of B.Sc Mathematics Programme under CBCSS UG Regulations 2019 of the University, w.e.f 2019 admission onwards was implemented, vide paper read (1) above.
2. Memorandums were received on behalf of the students, requesting to rectify the issues in the syllabus of BSc Mathematics programme w.e.f 2019 admn., vide paper read (2) above.
3. The Board of Studies in Mathematics UG, held on 03.07.2021 considered the memorandum and resolved, vide paper read (3) above, to recommend the following in the wake of covid 19 situation and the magnitude of the syllabus of BSc Mathematics programme w.e.f 2019 admns:

For the 2019 admission students, questions from some areas of the syllabus should be exempted from the University examinations. A proper direction should be given to the question paper setters. The details of the same are given below:

**MTS5 B05 Theory of Equations and Abstract Algebra**

- a. Questions should be omitted from the Section V.6 of Chapter V(Text I) of Module I;
- b. Questions should be omitted from the Section 3.7 of Module III (Text 2);
- c. Questions should be omitted from the Sections 3.8 and 7.1 of Module IV (Text 2);
- d. Questions from the Section 5.1 of Module IV (Text 2) shall be restricted to Section A only consisting of 2 marks questions.

**MTS5 B06 Basic Analysis**

- a. Questions should be omitted from the Sections 3.6 and 11.1 (Text I) in Module III;
- b. Questions should be omitted from the Sections 2.3 and 2.4 of Module IV (Text 2);
- c. Questions (only definitions and examples types) from the Section 3.1 of Module IV (Text 2) shall be restricted to Section A only consisting of 2 marks questions.

**MTS5 B07 Numerical Analysis**

- a. Questions should be omitted from the Sections 2.4 and 3.2 in Module I;
- b. Questions should be omitted from the Sections 4.4 and 4.7 of Module II;
- c. Questions should be omitted from the Section 5.6 of Module III;
- d. Questions of the type "State and Prove" or "Prove that" should be avoided.

### **MTS5 B08 Linear Programming**

- a. Questions should be omitted from the Chapter 5 of Module III;

### **MTS5 B09 Introduction to Geometry**

- a. Questions should be omitted from the Sections 3.3, 3.4 and 3.5 in Module III.

### **OPEN COURSE**

#### **MTS5 D01 Applied Calculus**

- a. Questions should be omitted from the Section 1.4 of Module I;
- b. Questions should be omitted from the Sections 2.5, 2.6, 3.4 and 3.5 of Module II;
- c. Questions should be omitted from the Sections 5.3, 5.5 and 5.6 of Module III.

#### **MTS5 D02 Discrete Mathematics For Basic and Applied Sciences**

- a. Questions should be omitted from the Section 1.6, 1.7, 1.8 and 1.9 of Module I;
- b. Questions should be omitted from the Sections 8.5,8.6,10.4, 10.5 and 10.6 of Module II;
- c. Questions should be omitted from the Sections 11.6, 12.3 and 12.4 of Module III.

#### **MTS5 D03 Linear Mathematical Models**

- a. Questions should be omitted from the Section 2.6 of Module I;
- b. Questions should be omitted from the Sections 3.3 of Module II;
- c. Questions should be omitted from the Sections 4.4 of Module III.

#### **MTS5 D04 Mathematics for Decision Making**

- a. Questions should be omitted from the Sections 5.1, 5.2 and 5.3 of Module III.
4. The Dean, Faculty of Science, vide paper read (4) above, has approved the recommendations of the meeting of Board of Studies in Mathematics UG held on 03.07.2021 as detailed in para (3) above.
5. Considering the urgency, the Vice Chancellor has accorded sanction to implement the recommendations of the meeting of Board of Studies in Mathematics UG held on 03.07.2021 as detailed in para (3) above due to Covid 19 pandemic situations, subject to ratification by the Academic Council.
6. Orders are issued accordingly.

Arsad M

Assistant Registrar

To

1.Principals of all affiliated colleges 2.The Director, School of Distance Education  
Copy to: PS to VC/PA to PVC/ PA to Registrar/PA to CE/DR, SDE/JCE I/JCE IV/EX and EG  
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Section Officer



**REPORT ON  
INVOLVEMENT OF FACULTY MEMBERS ON REVISION OF SYLLABUS**

**Department of Statistics**

**MSc STATISTICS PROGRAMME**

The Principal Dr.Muhammad Fareed.T.P,Senior faculty from Department of Statistics has a crucial role in the decision-making process regarding the proposed changes to the elective options. He had 8 years of experience in the industry in the field of data science and can support the students for industry interaction.

Dr.Muhammad Fareed.T.P, collaborated with Dr.Mini T C,Head of the Department (HoD),had several years of experience in various colleges within the country and outside, and had excellent industry exposure. The experience of HoD definitely benefits our students and other relevant stakeholders to discuss the proposed elective options. They may seek input from faculty members, the Board of Studies, and other experts in the field to ensure that the changes meet academic standards and address the current demands of the job market.

Dr.Muhammad Fareed.T.P, reviewed the detailed syllabus plan prepared by the faculty members. They assessed the content, structure, and learning outcomes of the proposed electives to ensure they are comprehensive, relevant, and aligned with the objectives of the programme.They reviewed the suggestions made by the faculty and considered the potential benefits and implications for the students and the college.

Dr.Muhammad Fareed.T.P, provided support and allocated resources necessary for implementing the changes in the syllabus. This included arranging industry interactions, facilitating guest lectures, and ensuring the availability of appropriate teaching materials and technological infrastructure.

By actively participating in the revision process, Dr.Muhammad Fareed.T.P, contributed to the enhancement of the MSc Statistics program, aligned it with industry demands, and ensures that students receive a comprehensive education that prepares them for the evolving job market in data science.

Principal, Dr.Muhammad Fareed.T.P,had sent a letter and an email on 25th May 2021 ,to the registrar of University of Calicut, requesting to revise the present syllabus of the Post Graduate Programme in Statistics with 3 elective choice options running currently with the full strength of students. Due to the increasing demand for Data Science specialists in the job market, our students would like to opt for specialisation, for learning more of Data Science in electives offered. Principal requests him to kindly instruct the PG Board of Studies in Statistics to consider the following elective paper options in PG Statistics.

1. Statistical Machine Learning – I (Basic statistical methodology of Statistical learning, Foundation theories, and applications)
2. Statistical Machine Learning – II (More on Statistical learning, including unsupervised learning and random forest)
3. Advanced Statistical Machine Learning - Advanced methodologies, including Neural Networks, support vector & flexible discriminants.

Finally on 14th of July 2021 an order had been issued by the University of Calicut in this regard ( U.O.No.711/2021/Admin Dated,University of Calicut.P.O,14.07.2021)with the approval of Board of Studies-Stating,Scheme and Syllabus of MSc Statistics Programme under CBCSS PG regulations 2019-Incorporating Outcome based Education(OBE)with effect from 2020 admissions- Including Additional Electives- Approved

Attached: (1) Email sent to the Registrar University of Calicut by the Principal,WMO arts and

Science College,Muttill,Wayanad.

- (2) Copy of the Abstract of the Order issued by Calicut University,by approving the revision of the MSc Statistics Programme Syllabus.

From: principal wmoc  
<principal@wmo college.ac.in>  
To: "reg"<reg@uoc.ac.in>  
Date: Tue, 25 May 2021 10:47:10 +0530  
Subject: suggesting change of electives in PG  
course of Statistics - reg  
===== Forwarded message =====

Respected sir,

Greetings from WMO Arts & Science College,  
Mutill

Our college has the Post Graduate program in **Statistics with 3 elective choice options running** currently with the full strength of students. Due to the increasing demand for Data Science specialists in the job market, our students would like to opt for specialization, for learning more of Data Science in electives offered. And so we would like to request you to kindly instruct the PG Board of Studies in Statistics to consider the following elective paper options in PG Statistics.

1. Statistical Machine Learning - I (Basic statistical methodology of Statistical learning, Foundation theories, and applications)
2. Statistical Machine Learning - II (More on Statistical learning, including unsupervised learning and random forest)
3. Advanced Statistical Machine Learning - Advanced methodologies, including Neural Networks, support vector & flexible discriminants.

I had 8 years of experience in the industry in the field of data science and hope I can support the students for industry interaction. Dr. Mini T. C., HoD, had several years of experience in various colleges within the country and outside, and had excellent industry exposure. I hope the experience of HoD definitely benefits our students.

We have a detailed syllabus plan in our mind may be shared with the authority if needed.

I request you to do the needful at your earliest so that we can implement the changes in the syllabus starting next academic year.

Thanking you,  
Yours truly,  
Dr. T P Muhammad Fareed  
Principal  
WMO Arts & Science College  
9496963327/9003018532





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Outbox

NewsLetter 447

Notification 1899

AGS

Notification

NewsLetter

NEWS

Unread 2575

All messages

Flagged

All archived

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2022

Credit... Fw: RE: I... JUN 16, 20...

principa... Confiden... JAN 16, 20...

2021

principa... Confiden... DEC 31, 20...

principa... Comple... JUL 06, 20...

principa... Request to ... MAY 26, 20...

principa... suggesting ... MAY 21, 20...

principa... Confiden... MAY 07, 20...

principa... Re: Fwd: ... MAY 05, 20...

WMO ... Fwd: W... MAY 06, 20...

principa... Request to ... JAN 06, 20...

2020

principa... Fwd: Prind... DEC 07, 20...

dmashe... Fwd: Prind... DEC 07, 20...

WMO ... Fwd: NAA... NOV 27, 2...

Biju ko... Re: NAAC ... NOV 27, 2...

Me <principal@wmo.ac.in>

Tue 28 May 2021 10:47:11 AM +0530 - SENT

To: "reg" <reg@uoc.ac.in>

Tags

Reminder Add task Permalink Snooze

### suggesting change of electives in PG course of Statistics - reg

Respected sir,

Greetings from WMO Arts & Science College, Mutlill

Our college has the Post Graduate program in Statistics with 3 elective choice options running currently with the full strength of students. Due to the increasing demand for Data Science specialists in the job market, our students would like to opt for specialization, for learning more of Data Science in electives offered. And so we would like to request you to kindly instruct the PG Board of Studies in Statistics to consider the following elective paper options in PG Statistics.

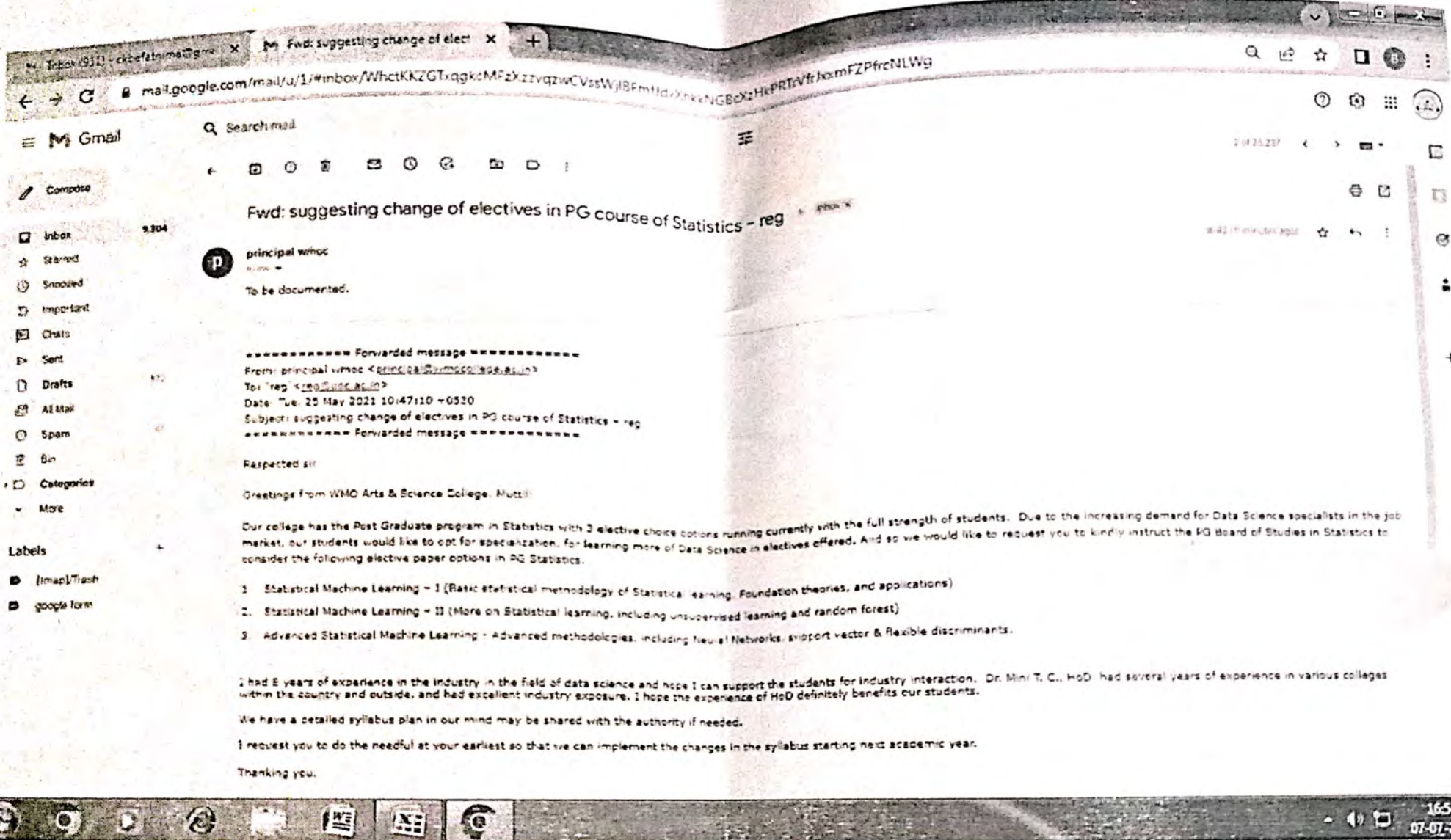
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We have a detailed syllabus plan in our mind may be shared with the authority if needed.

Share conversation

20°C Friday 18:07



Fwd: suggesting change of electives in PG course of Statistics - reg

principal whoc  
To: reg

\*\*\*\*\* Forwarded message \*\*\*\*\*  
From: principal whoc <principalwhoc@wmo.ac.in>  
To: reg <reg@wmo.ac.in>  
Date: Tue, 25 May 2021 10:47:10 +0530  
Subject: suggesting change of electives in PG course of Statistics - reg  
\*\*\*\*\* Forwarded message \*\*\*\*\*

Respected sir

Greetings from WMO Arts & Science College, Mutl.

Our college has the Post Graduate program in Statistics with 2 elective choice options running currently with the full strength of students. Due to the increasing demand for Data Science specialists in the job market, our students would like to opt for specialization, for learning more of Data Science in electives offered. And so we would like to request you to kindly instruct the PG Board of Studies in Statistics to consider the following elective paper options in PG Statistics.

1. Statistical Machine Learning - I (Basic statistical methodology of Statistical learning, Foundation theories, and applications)
2. Statistical Machine Learning - II (More on Statistical learning, including unsupervised learning and random forest)
3. Advanced Statistical Machine Learning - Advanced methodologies, including Neural Networks, support vector & flexible discriminants.

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We have a detailed syllabus plan in our mind may be shared with the authority if needed.

I request you to do the needful at your earliest so that we can implement the changes in the syllabus starting next academic year.

Thanking you.



File Ref.No.25539/GA - IV - J2/2013/CU



UNIVERSITY OF CALICUT

Abstract

General and Academic - Faculty of Science - Scheme and Syllabus of MSc Statistics Programme under CBCSS PG Regulations 2019 - Incorporating Outcome Based Education (OBE) with effect from 2020 Admission onwards - Including Additional Electives - Approved, subject to ratification of Academic Council - Orders Issued.

G &amp; A - IV - J

U.O.No. 7011/2021/AdmnDated, Calicut University.P.O, 14.07.2021

Read:-1. U.O.No. 9142/2019/Admn Dated, 10.07.2019

2. U.O.No. 5022/2021/Admn Dated, 29.04.2021

3. Letter dated 25.05.2021 from the Principal, WMO Arts &amp; Science College, Muttill

4. Item No. 2 in the minutes of the meeting of the BoS, Statistics (PG) held on 19.06.2021

5. Remarks of Dean, Faculty of Science dated 09.07.2021

6. Orders of Vice Chancellor in the file of even No. dated 10.07.2021

ORDER

1. Vide paper read (1) above, the Scheme & Syllabus of MSc Statistics Programme for affiliated colleges, in accordance with CBCSS PG Regulations 2019, was implemented in the University with effect from 2019
2. Admission .  
Vide paper read (2) above, the Scheme and Syllabus of MSc Statistics Programme, incorporating Outcome Based Education (OBE) in the existing syllabus, for affiliated colleges, in accordance with CBCSS PG
3. Regulations 2019, was implemented, with effect from 2020 Admission onwards,  
Vide paper read (3) above, the Principal, WMO Arts & Science College, Muttill forwarded a proposal for adding the three elective courses based on Data Science, Statistical Machine Learning-I, Statistical
4. Machine Learning-II & Advanced Statistical Machine Learning Techniques, to M.Sc Statistics Programme. While considering the proposal, the Board of Studies in Statistics (PG) decided, vide paper read (4) above, to include the 3 courses, in the list of electives of the existing MSc Statistics Programme (CBCSS) as  
: E19: Statistical Machine Learning-I; E20: Statistical Machine Learning-II and E21: Advanced
5. Statistical Machine Learning Techniques.  
The decision of Board of Studies has been approved by the Dean, Faculty of Science and by the Vice
6. Chancellor, subject to ratification by the Academic Council, vide paper read (5) and(6) respectively.  
The Modified Scheme and Syllabus of MSc Statistics Programme, by including the three elective courses  
: E19: Statistical Machine Learning - I, E20: Statistical Machine Learning - II and E21: Advanced
7. Statistical Machine Learning Techniques, for affiliated colleges, in accordance with CBCSS PG Regulations 2019, is therefore implemented, with effect from 2020 Admission onwards, subject to ratification by the Academic Council.  
Orders are issued accordingly. U.O.No. 5022/2021/Admn Dated, 29.04.2021 stands modified to this extent. (modified syllabus appended)

Arsad M

Assistant Registrar

To

The Principals of all Affiliated Colleges

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Section Officer



**Contributions to BSc Physics Curriculum from Dr. Biju KG, Associate Professor of Physics and Science College, Muttill, as a Board of Studies (BoS) member for a period from 11-02-2020 to 10-02-2023.**

1. Shortly after the constitution of the New Board of Studies, the Covid-19 outbreak happened and as a team, the BOS effectively participated in modifying the curriculum according to the prevailing situations.
2. As it was difficult to conduct practical examinations during the Covid period, the BOS recommended reducing the minimum number of experiments to be done for Practical Paper-II, and III for the core program. BOS prepared a revised syllabus for practical, and the University has approved the same.
3. In the Calicut University Curriculum a study tour to a place of Scientific importance is compulsory, but in the context of Covid, BOS requested the University to allow the students for virtual tours to places of scientific importance. University has approved the same and, BOS in Collaboration with the Academy of Physics teachers, organized three such seminars on National Institutes. These Seminars are available on YouTube.
4. The syllabus permits the students to do experimental or theoretical projects. But in the Covid situation, the BOS advised the teachers and students to do theoretical projects such as review works, or other theoretical projects based on programming.
5. The University of Calicut has approved all these suggestions as per the U.O.No. 11769/2020/Admn Dated, 02.12.2020.
6. The BOS also revised the existing syllabus (2019 Revision) of two BSc Physics theory Papers after considering the grievances from teachers and students regarding the content of Core Course I - Methodology of Science and Basic Mechanics and Core Course II – Mechanics. These courses are renamed Mechanics-I and Mechanics-II in the revised syllabus (Ref: U.O.No. 6321/2020/Admn Dated, Calicut University. P.O, 07.07.2020).

**Attachments:**

1. University order approving the recommendations of BoS during the Covid period. (U.O.No. 11769/2020/Admn Dated, 02.12.2020.)
2. Modified Syllabus accepting the recommendations of the BoS. (U.O.No. 6321/2020/Admn Dated, Calicut University.P.O, 07.07.2020)  
[http://docs.uoc.ac.in/website/syllabus/2020-07-07%2011:35:00\\_syl945.pdf](http://docs.uoc.ac.in/website/syllabus/2020-07-07%2011:35:00_syl945.pdf)
3. Links and relevant documents of virtual tours arranged by BoS.
  1. <https://www.youtube.com/watch?v=ieT0RzwhGyM&t=2236s>
  2. <https://www.youtube.com/watch?v=Eeq3oBoFd9M&t=138s>
  3. <https://www.youtube.com/watch?v=NgPwArM5Pdw&t=1658s>

**UNIVERSITY OF CALICUT****Abstract**

General & Academic - Faculty of Science - Mode of Conduct of Practicals, Projects & Study Tour for BSc Physics Programme in the wake of Covid 19 pandemic situation -Decision of the Board of studies in Physics UG- Implemented- Orders Issued.

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**G & A - IV - J**

U.O.No. 11769/2020/Admn

Dated, Calicut University.P.O, 02.12.2020

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- Read:-*1. The minutes of the meeting of Board of Studies in Physics UG, held on 19.10.2020  
2. Remarks of the Dean, Faculty of Science, dated 28.11.2020  
3. Order of the Vice Chancellor in the file of even no. dtd 01.12.2020

**ORDER**

The meeting of the Board of Studies in Physics (UG) held on 19.10.2020 recommended the following on the mode of conduct of practicals, projects & study tour, in the wake of Covid 19 pandemic situation, vide paper read first above.

- For the BSc physics core Practical papers-II and III, the minimum number of experiments to be recorded shall be changed to 12, instead of 20. The experiments in these papers shall be rearranged priority wise into two priority lists. Once the lab sessions start in colleges the experiments in Priority list-I should be completed first. Out of the 12 minimum experiments, at least 8 should be from priority list -I. See Annexure-II.
- The number of questions in the practical question paper shall be increased from 6 to 10.
- At present no changes are suggested in the minimum number of experiments for the Core Practical Paper-I and Complementary Practical paper, as the students have one more academic year to complete the programme. Special lab sessions shall be arranged during vacations for completing the same if the situations are favorable. But the question papers shall be modified by increasing the number of questions from 6 to 10, as in the case of core practical papers II and III.
- For BSc physics students, study tour (not less than two days) to a place of scientific importance is compulsory, which carries a total mark of 20. In the current scenario, even if the classes start, it may not be possible to conduct study tours as proposed in the syllabus. The basic aim of adding the provision of study tour in the syllabus is to motivate the students by introducing various national institutes and national laboratories to them. The same objective can be achieved by introducing various institutions and laboratories through online platforms. An initial list of such institutions and facilities are given in Annexure-III.

- The BOS has proposed to arrange webinars by the scientists from these institutes regarding the overall functioning of the institute, research opportunities and major research contributions. BOS in collaboration with professional organizations of physics teachers can coordinate such programmes. The students can attend at least one webinar offered by a national level institute. They can also consult the website of that institute. Based on the experience from the webinar and the information from the website, they may be able to prepare and submit a report on the institute, giving an overview of the research outputs from there. In the current situation, such a report submitted by the student and certified by the teacher in charge, shall be considered as equivalent to the study tour report.
  - The syllabus permits the students to do experimental or theoretical projects. In this situation, it may be good to advise the students do theoretical projects such as review works, or other theoretical projects based on programming
2. The Dean, Faculty of Science has approved the above suggestions in the minutes of the meeting of the Board of Studies in Physics UG and same has been approved by the Vice Chancellor, subject to ratification of Academic Council, vide paper read (2) & (3) above.
  3. Considering the urgency of the matter, the Vice Chancellor has accorded sanction to implement the decision of the Board of Studies in Physics UG on the mode of conduct of practicals, projects & study tour for BSc Physics programme, in the wake of Covid 19 pandemic situation, subject to ratification by the Academic Council.
  4. Sanction is therefore accorded for implementing the decision of the Board of Studies in Physics UG on the mode of conduct of practicals, projects & study tour for BSc Physics programme, in the wake of Covid 19 pandemic situation, as detailed in para (1) above.
  5. Orders are issued accordingly. (Annexure II & III in the minutes appended).

Arsad M

Assistant Registrar

To

The Principals of all Affiliated Colleges offering BSc Physics Programme.

Copy to: PS to VC/PA to PVC/ PA to Registrar/PA to CE/JCE I/JCE IV/DoA/EX and EG Sections/GA I F/CHMK Library/Information Centres/SF/DF/FC

Forwarded / By Order

Section Officer

**ANNEXURE-II**  
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**Number of questions in the question paper shall be**

- PAPER -I: TEN (10)
- PAPER- II &III: TEN (10)

**PH6B14 - Practical II (Credit 5)**  
**5th & 6th SEM EXPTS. (Minimum 12 Experiments)**

**PRIORITY-I (Minimum 8 from PRIORITY -I)**

1. Spectrometer- Cauchy's constants
2. Spectrometer-Diffraction Grating-Normal incidence
3. Newton's -wavelength of sodium light.
4. Potentiometer-calibration of low range and high range voltmeters
5. Variation of field with distance-Circular coil-moment of magnet &  $B_h$
6. Carey Foster's Bridge -resistance & resistivity
7. Conversion of Galvanometer to voltmeter and calibrating using Potentiometer.
8. Planck's Constant Using LEDs ( 3 Nos).
9. Frequency of AC using sonometer.
10. Numerical aperture of an optical fibre by semiconductor laser
11. Searls and Box vibration magnetometers-  $m$  &  $B_n$ .
12. Air wedge-angle of the wedge, radius of a thin wire

**PRIORITY-II**

13. Spectrometer-  $i_1$ - $i_2$  curve
14. Laser-wavelength using transmission grating
15. Diffraction Grating-minimum deviation
16. Spectrometer-Quartz prism-Refractive indices of quartz for the ordinary and extra-ordinary rays
17. Lee's Disc- thermal conductivity
18. Potentiometer- Reduction factor of TG
19. Carey Foster's Bridge-Temperature coefficient of Resistance
20. Conversion of Galvanometer to ammeter and calibrating using Potentiometer.
21. BG Absolute Capacity
22. BG-High resistance by leakage method
23. BG Mutual inductance
24. Polarimeter-Specific rotation of sugar solution.

**ANNEXURE-II**  
**(Page-2/2)**

**PH6B15 Practical III (Credit 5)**

**5th & 6th SEM EXPTS (Minimum 12 Experiments : Eight from Unit : I and Four from Unit : II)**

**Unit-I (Minimum 8 from Unit -I)**

**PRIORITY-I (Minimum 5 from PRIORITY -I)**

1. Construction of full wave, Centre tapped and Bridge rectifiers
2. Characteristics of Zener diode and construction of Voltage regulator.
3. CE Transistor Amplifier-Frequency response.
4. Operational Amplifier inverting, noninverting, Voltage follower
5. Construction of basic gates using diodes(AND, OR) & transistors (NOT), verification by measuring voltages
6. Multivibrator using transistors.
7. Verification of De-Morgan's theorem using basic gates.
8. LCR circuits-Resonance using CRO

**PRIORITY-II**

9. Transistor characteristics and transfer characteristics in Common Base Configuration- current gain
10. Transistor characteristics and transfer characteristics in Common Emitter Configuration- current gain
11. Full adder using NAND gates-construction & verification
12. Negative feed back amplifier
13. LC Oscillators (Hartley or Colpitt's)
14. Phase shift oscillator
15. Voltage multiplier (doubler, tripler)
16. Flip-Flop circuits- RS and JK Using ICs.
17. Half adder using NAND gates

**Unit : II Numerical Methods Using Python : (Minimum 4 from Unit -II)**

**PRIORITY-I (Minimum 3 from PRIORITY -I)**

18. Solution of equations by bisection and Newton-Raphson methods
19. Least square fitting straight line fitting.
20. Numerical Integration Trapezoidal and Simpson's 1/3 rd rule.
21. Taylor series –  $\sin\theta$  and  $\cos\theta$ .

**PRIORITY-II**

22. Numerical differentiation using difference table.
23. Solution of differential equation Runge-Kutta method (Harmonic Oscillator).
24. Simulation of freely falling body. Tabulation of position, velocity and acceleration as a function of time.
25. Simulation of projectile Tabulation of position, velocity and acceleration as a function of time Plot trajectory in graph paper from tabulated values.



**ANNEXURE-III**  
**(Page-1/1)**

**A Tentative List of National Level Institutes that can Offer Webinars to the Students**

1. Indian Institute of Science (IISc), Bengaluru
2. Raman Research Institute (RRI), Bengaluru
3. International Centre for Theoretical Sciences (ICTS), Bengaluru
4. Tata Institute of Fundamental Research (TIFR), Mumbai
5. Inter University Accelerator Center (IUAC), Delhi
6. Inter University Center for Astronomy and Astrophysics (IUCAA), Pune
7. National center for Radio Astrophysics (NCRA), Pune
8. Bhabha Atomic Research Center (BARC), Mumbai
9. Physical research Laboratory (PRL), Ahmedabad
10. Ooty Radio Observatory
11. Kodaikkanal Solar Observatory
12. CSIR-National Institute for Inter disciplinary Science and Technology (CSIR-NIIST),  
Thiruvananthapuram
13. Indian Institute of Science Education and Research (IISER), Thiruvananthapuram
14. Indian Institute of Technology (IIT), Palakkad
15. Indian Institute of Space Science and Technology (IIST), Thiruvananthapuram
16. National Institute of Technology (NIT), Calicut
17. Centre for Materials for Electronics Technology (C-MET), Thrissur
18. Cochin University of Science and Technology (CUSAT)



January 26, 2021

**Webinar on National Centre for Astrophysics(NCRA)**  
Tuesday, January 26, 2021 - 9:30am - 12:30pm

[Join with Google Meet](#)  
meet.google.com/wfo-oiac-nap

19 guests  
7 yes, 1 no, 11 awaiting

- Biju koonammakkil george**  
Organizer
- Ishwara Chandra C. H
- Vikas L S
- Dr.Nishanth T
- ollakkans@gmail.com
- Sabira Nerothpoyil
- soumya s
- Mk Jayaraj

Going?    ▾

**Webinar-Inter-University Accelerator Centre (IUAC)**  
Saturday, January 30, 2021 - 9:30am - 12:30pm

[Join with Google Meet](#)  
meet.google.com/env-exps-jye

20 guests  
5 yes, 15 awaiting

- Biju koonammakkil george**  
Organizer
- Sabira Nerothpoyil
- soumya s
- Sugathan Pullanhiotan
- Sunil John
- Antony Joseph
- csukesh1@rediffmail.com
- aj@uoc.ac.in

Going?    ▾



**REPORT**  
**CURRICULUM RESTRUCTURING WORKSHOP – ELECTRONICS (Single Boaru )**

May 20-22, 2019

**“UNDERGRADUATE &  
POST GRADUTE PROGRAMMES  
IN ELECTRONICS”**

**1. Curriculum Restructuring based on OBE**

The higher educational sector plays an important role in performing research and making genuine efforts to preserve and rebuild ecosystems. Research and putting forth sincere efforts to protect and regenerate ecosystems, in the educational sector is crucial. Universities are widely regarded to play a critical role in addressing the most pressing sustainability concerns by engaging in sustainability research, teaching the next generation, and pushing legislators to include sustainability ideas in the country's development initiatives. University campuses are expected to serve as an experimental sustainability paradigm on a worldwide scale.

As the UGC has made it mandatory for us to follow the Choice Based Credit & Semester System (CBCS) and Outcome Based Education (OBE) system, our UG courses with fairly well-updated contents have been under the choice-based credit and semester system. Although their overall standard is quite good, their structure, composition, procedures, and credit administration are to be further fine-tuned to incorporate the features of OBE. Courses are well-designed instruction packages in specific knowledge fields, with preconceived results that go into the making of the outcome of the Academic Programme.

They are scientifically structured with insights of continuity, sequence, and integration, appropriate for effective learning. Workshops were organized in different universities in the state in this direction for the BOS for redesigning the courses at the UG/PG level.

Designing a Course is part of the science of teaching and learning. It is integral to OBE that insists upon the determination of learning outcomes as the first step. Precisely drawn outcomes of a Course provide clarity of purpose in teaching/learning. They act as a running thread of quality control across the planning of curriculum, selection of instructional strategies, choice of learning experience, and preparation of tests. Informing learners about the outcome well in advance, OBE enables ongoing concurrent self-assessment of learners for making sure of their progress towards attaining the outcome. It provides them with chances to demand new

learning experiences that ensure the same. Since the outcomes are stated, the teachers also get to know the progress and they enjoy the legitimate right to test whether the learners have attained the goal.

## **2. OBE workshops by KSHEC**

It is part of KSHEC's faculty and curriculum development programme addressing pedagogical measures related to higher education viz., Outcome Based Education, Course Design, Instructional Design, and Assessment for Good Learning. The Higher Education Council curriculum development programme focussed on Course Design as construed by the UGC.

Prof. N.J. Rao, Professor Emeritus, CEDT (Centre for Electronics Design and Technology now The Department of Electronic Systems Engineering) IISc, Bangalore, and his team have developed a specialized scheme of OBE for faculty members and board of studies and have offered extensive training through KSHEC. It is a Trainers Training Workshop exclusively for the Board of Studies (BoS members of PG and UG levels), and is predominantly activity-oriented and based on a one-to-one interaction with all participants during and after the workshop.

In continuation to the OBE workshops, various Board of Studies under the University of Calicut conducted faculty training workshops highlighting OBE. The syllabus w.e.f 2019 admissions onwards was redesigned based on an OBE pattern. As part of the same advanced learners and slow learners were considered and additional courses such as Ability Enhancement Courses (AEC), Discipline Specific Electives (DSE), Open Courses, etc. were introduced without affecting the existing workload of teachers. The Board of Studies (Single board ) in Electronics conducted a three-day workshop for the Electronics faculty in various colleges under the University of Calicut at W M O Arts and Science College, Muttill. The Chairman of the board Dr. Nobert Thomas Pallath welcomed the guest and the participants. Principal Dr. T.P Mohammed Fareed, Syndicate member Sri. KK Haneefa, College Management Convener Shri.Mayan Manima , Sri. NB Faisal (Ward Member Muttill Grama panchayath) spoke in the inaugural session. Subject experts from other Universities, the Electronics industry, and R&D organizations presented their views on Outcome Based Education in Electronics. The workshop also addressed the need for a question bank for preparing university question papers based on student assessment strategy under OBE. Also, faculty members of other departments

of WMO Arts & Science College participated in similar workshops under the University of Calicut.

### **3. CURRICULUM RESTRUCTURING WORKSHOP – ELECTRONICS ( Single Board )**

#### **LIST OF RESOURCE PERSONS**

1. Shri. BhadranVK  
Senior Director  
CDAC, THIRUVANANTHAPURAM
2. Dr. M MAHADEVA PRASAD  
Assistant Professor & Course Coordinator  
Dept. of Studies in Electronics  
Post Graduate Centre  
University of Mysore  
HASSAN, Karnataka, India
3. Dr.Sujith Raman  
UGC-Assistant Professor,  
Department of Electronics and Instrumentation  
BharathiarUniversity,Coimbatore,Tamilnadu
4. Shri. K.C Prakash  
Associate Professor  
Dept. of Electronics,  
SreeAyyappa College Eramallikkara,  
Alappuzha, Kerala
5. Shri. SharafudheenK ( Industrialist )  
Altron Digital Systems Pvt. Ltd.  
Kozhikode, Kerala

#### 4. Photographs





The rapid and unprecedented changes being observed in all spheres of life in the 21<sup>st</sup> century is posing enormous challenges to the traditional ways of education. As the world becomes increasingly interconnected, it gives rise to a wide range of opportunities and challenges. Our education system must swiftly evolve to be able to inculcate 21<sup>st</sup> century skills to help students not just to survive but to thrive in such an environment. The higher education system needs to become more socially responsible and help develop a knowledge society which can drive development through social and technological innovations in a sustainable manner. As the central objective of the Undergraduate Curriculum the Government of Kerala has envisioned building of a strong knowledge society which can help develop and sustain a knowledge economy.

## 5. The Gap

With the exception of a few premier national institutes, our present system relies more on regulations with a focus on discipline-based syllabi which provides very few opportunities for interdisciplinary and multidisciplinary learning, lack of early-stage research

exposure, a weak innovation ecosystem, and low levels of industry engagement. The present higher education system is predominantly teacher-centric, with the teachers' role being to provide facts and the role of the students being restricted to memorising these facts and reproducing them in examinations. Very little importance is given to developing conceptual understanding, relevance to real-world situations, logical analysis, and problem-solving. Establishing precedence of learning over teaching requires a fundamental transformation of the existing system of higher education. Education in many countries is already learning-centric and many others are moving fast towards it. Digital technologies and the internet today provide students access to web-based learning of enormous flexibility and choice, thanks to the vast body of open-source knowledge repositories across disciplines.

Technologies empower students to enjoy the facility of learning, anytime, anywhere, and at any level that they intend. Freedom of multiple entry and exit besides the Academic Bank of Credits facilitates their mobility from University to University even globally. Students now form part of the worldwide community of learners capable of wider interaction, networking, and collaboration.

In recognition of this gap and the view of the Government to develop Kerala as a knowledge society, it becomes necessary that we strengthen undergraduate programmes with a curriculum that can equip students with the knowledge base, intellectual abilities, worldview, flexible skill sets, and the basic expertise that will make them effective citizens in a knowledge society and offer them multiple employment options. Undergraduate studies should ideally lay the foundation for the development of broad intellectual skills and other competencies that enable transfer and application in a wide range of practice. The disciplinary training at the undergraduate level (as the word 'discipline' connotes) is more to develop structures of thought, inquiry, exploration, expression, attitudes, sensibilities, habits, and abilities associated with teamwork, than to commit to memory a large array of information, often in a disconnected manner.

Dr Nibert Thomas Pallath  
(Chairman Board of Studies)

Associate Professor

W M O Arts and Science College, Muttill