



GOVERNMENT OF WEST BENGAL
OFFICE OF THE PRINCIPAL
Maulana Azad College



8, RAFI AHMED KIDWAI ROAD, KOLKATA 700013, INDIA

Phone: 033 2249-3737/2226-7814 e-mail: maulanaazadcollegekolkata@gmail.com

Website: <https://maulanaazadcollegekolkata.ac.in>

Summary Report, Meeting Notice, Meeting Resolution, Course Brochure/Curriculum, Course outcomes, Evaluation Process, Sample Certificate

8. Fermentation Techniques for synthesis of Value-added products

Summary Report of the Course

Course Name: **Fermentation Techniques for synthesis of Value-added products**

Course Code: **AD-MCB-21-22-01**

Organizing Department: **Department of Microbiology**

Course Duration: **30 Hours (03.03.2022 - 16.03.2022)**

No. of Enrolled Students: 29

No. of student completed the course: 29

Aim: The add-on course on “Fermentation Techniques for synthesis of value added products” aims to provide students with a comprehensive understanding of advanced fermentation techniques and applications of microbial fermentation processes in synthesizing various value-added foods. The course focuses on enhancing analytical & application oriented skills for studying selection and usage of potential microorganisms in fermentations of useful food products in a cost-effective way.

Course Outcome:

After completing the add-on course on “Fermentation Techniques for synthesis of value added products”, students will be able

- To design experimental ideas independently and
- To implement novel solutions using different microbial systems involved in fermentative processes
- To utilize advanced fermentative techniques for experimental purposes
- To apply the knowledge of microbial fermentation processes in industrial field.



Principal
Maulana Azad College
Kolkata-13



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Departmental Meeting Notice

Maulana Azad College
Department of Microbiology

Notice dated 20.02.2022

A **Departmental Committee Meeting** will be held tomorrow, the 21st of February, 2022 at the departmental staff room from 2 PM.

Agenda

- Drafting and finalization of new routine as per notice received from Principal's office dated 19.02.2022.
- Fixing dates and modalities of conducting CU Sem I practical examinations.
- Finalization of candidate list who will appear for their Sem I exams.
- Matters arising

All faculty members are requested to attend the meeting positively.


Head Head
Department of Microbiology
Maulana Azad College
Department of Microbiology
8, Rafi Ahmed Kidwai Road
Kolkata - 700013

Maulana Azad College
Department of Microbiology

Notice dated 20.02.2022

With reference to the previous notice regarding a scheduled DC meeting tomorrow, it is hereby stated that the aforesaid meeting is being postponed from 2 P.M. to 1 P.M. following a Government Order for observance of a half day holiday tomorrow. All concerned are therefore requested to attend the meeting at 1 PM instead of 2 PM.


Head
Department of Microbiology
Head
Department of Microbiology
Maulana Azad College
8, Rafi Ahmed Kidwai Road
Kolkata - 700013

Members present
✓ Samudra Prasad Bandyopadhyay
Bhattacharyya
Bipasha Roy
Sudhakar Saha



Principal
Maulana Azad College
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Departmental Meeting Resolution

In reference to the notice dated 20.02.2022 the following teachers have attended the meeting held on 21.02.2022 at 2.00 p.m.

Resolutions of the meeting on 21/02/2022

1. Dates of CU Sem I practical examination have been decided according to the dates given by the University.
2. Routine has been finalised and draft prepⁿ will be done by Dr. B.K. Kundu.
3. Two Add-on courses a) "Fermentation Techniques for synthesis of Value-added products" and b) "Application of Spectroscopy and Nanotechnology in Biological Research" are to be started from 3rd March, 2022. It was unanimously decided in the DC meeting that the Add-on course (a) will be conducted and assessed by Avishek Ghosh, Arpan Das, Brijendra Roy and Bikan K. Kundu and (b) will be conducted and assessed by Samudra P. Banik, Debalina Bhattacharya and Suchitra Saitta.

Members Present

1. Arpan Das 21/2/22
2. Brijendra Roy 20/02/22
3. Samudra Banik 21/02/22
4. Arpan Das 21.2.22
5. Debalina Bhattacharya 20/2/22



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Evaluation Procedure

The evaluation process will be as per norm of IQAC, Maulana Azad College

It has been resolved that the evaluation process consist of the following.

- (a) There will be practical examination of 50 Marks.
- (b) Duration of practical examination will be 3 hours.
- (c) Result will be declared within one week after the examination.
- (d) Grade and percentage of Marks as per following table:

Percentage of Marks	Grade	Performance Indicator
90-100	AA	Outstanding
80-89	A+	Excellent
60-79	A	Very Good
40-59	B	Satisfactory
< 40	D	Disqualified



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Course Brochure / Curriculum

Department of Microbiology
Maulana Azad College
Add-on course

Fermentation techniques for synthesis of value added products

Syllabus

Module 1: Course duration 2hrs

Concept of common milk-fermented product of industrial importance: Preparation, raw materials, microbes involved in Shrikhand, Buttermilk, Laben, Koumiss, Kefir.

Module 2: Course duration 2hrs

Concept of common cereal-fermented product of industrial importance: Preparation, raw materials, microbes involved in Bouza, Chicha, Yosa, Kishk, Dhokla, Kenkey

Module 3: Course duration 2hrs

Concept of common vegetable-fermented product of industrial importance: Preparation, raw materials, microbes involved in Khalpi, Sinki, Kimchi

Module 4: Course duration 2hrs

Concept of common meat-fermented product of industrial importance: Preparation, raw materials, microbes involved in Ham, Bacon, Salami

Module 5: Course duration 1hr

Concept of HACCP: Common hazards of food handling during fermentation, determination of critical and control points, limitations of HACCP

Practical: Course duration 21hrs

- Study of butter making
- Study and assay of casein precipitation
- Role of salt in meat processing
- Study of food flavour generation
- Fermentation assays of Kefir, Sauerkraut and idli batter
- Assay of Gluten in food
- Detection of food preservation quality
- Determination of free fatty acid & acid value in oils & fats, unsaponifiable matter, iodine value in oils & fats
- Milk quality assay by resazurin technique.

Sandhya Prasad Ghosh
Debalina Bhattacharya

Pranab Das
Pranab Das

Suchitra Sankar
Bipasha Roy

@hosh



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To
The Principal
Maulana Azad College, Kolkata


Date: 22.02.2022

Respected Sir,

The Department of Mathematics, Maulana Azad College, has resolved in the online meeting held on 21.02.2022 that an add-on course for B.Sc.(H) students will be conducted from 03.03.2022 - 16.03.2022 on '**Fermentation Techniques for synthesis of Value-added products**'. The details of the proposed course are attached. We Shall remain grateful if you very kindly give permission to pursue the aforesaid course.

With regards,
Yours Faithfully,


Head
Department of Microbiology
Maulana Azad College
8, Rafi Ahmed Kidwai Road
Kolkata - 700013


Principal
Maulana Azad College
Kolkata
Govt. of West Bengal




Principal
Maulana Azad College
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Sample Certificate

	MAULANA AZAD COLLEGE 8, Rafi Ahmed Kidwai Road, Taltala, Kolkata 700013.	
No. MCBA/-----	Completion Certificate	
	Session: 2021-22	
<p>This is to certify that ----- (Enrollment No. -----) has participated and successfully completed 30 hours ADD-ON course on 'Fermentation Techniques for synthesis of Value-added products' (Course Code: AD-MCB-21-22-01), organized by the Department of Microbiology in association with IQAC, in the period 03-03-2022 to 16.03.2022, and secured Grade -----.</p>		
 Head/Course Coordinator	 IQAC Coordinator	 Principal



Principal
Maulana Azad College
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