DEPARTMENT OF CHEMISTRY

LIST OF ADD-ON COURSES

1	**ACHIEVING SDG GOALS WITH THE PROPERKNOWLEDGE OF FERTILIZERS-SOIL INNER RELATIONSHIP**
2	**CHEMISTRY MAY HAVE SOLUTIONS TO OUR PLASTIC TRASH PROBLEM**
3	**A CONCEPTUAL STUDY ON INDIAN SYSTEM OF MEDICINE**

IQAC recommendation

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

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

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

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

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

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

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

4/5/18
Co-ordinator
I Q A C
Vivekananda College
Kolkata-700 063

VIVEKANANDA COLLEGE

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

Ref. No. _____ Date 10/05/18

Notice

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

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

10/05/18

Principal
Vivekananda College
Thakurpukur Kol-63

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Website : www.vckolkata63.org email : vivekanandacollege63@gmail.com

VIVEKANANDA COLLEGE, THAKURPUKUR
Department of Chemistry

NOTICE

Date: 12.03.2019

A departmental meeting will be held on **16.03.2019** at 1:00 p.m. to discuss on the topics mentioned below. All teachers are requested to kindly attend the meeting.

Agenda of the meeting:

1. Introduction of Add-on course on “Achieving SDG goals with the proper knowledge of fertilizers-soil inner relationship " for UG Sem II students.
1. Miscellaneous

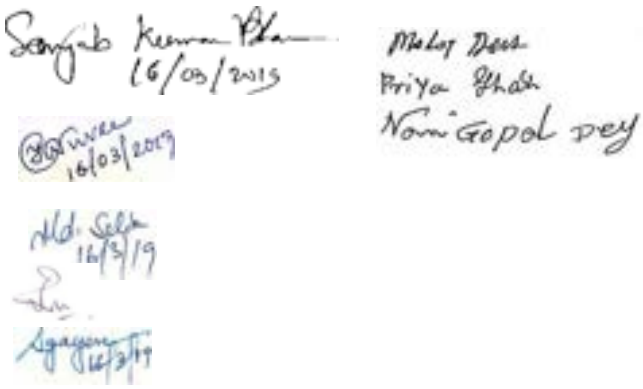
Sanjib Kumar Bhar
12/03/2019

(Dr.Sanjib Kumar Bhar)

Head of the Department
Department of Chemistry
Vivekananda College (Thakurpukur)

VIVEKANANDA COLLEGE, THAKURPUKUR
Department of Chemistry

A. Members present in the meeting: Date: 16.03.2019



B. Minutes of the meeting:

In the Departmental meeting dated 16/03/2019 the teachers of the Department of Chemistry unanimously decided that a 30-hour Add-on Course on " Achieving SDG goals with the proper knowledge of fertilizers-soil inner relationship " would be offered for UG Sem II students. It was also decided in the meeting that Dr. Sanjib Kumar Bhar and Prof. Yasin Nuree of Department of Chemistry would be the Course Coordinator for the Add-On Course on Achieving SDG goals with the proper knowledge of fertilizers-soil inner relationship for the Academic session 2018-2019.

C. The course structure of the course on " Indian Systems of Medicine(Interdisciplinary)**" submitted by** Dr. Sanjib Kumar Bhar and Prof. Yasin Nuree **was accepted by all teachers of the department**

D. Certificates would be given to each student at the successful completion of the Course.

VIVEKANANDA COLLEGE, THAKURPUKUR
Department of Chemistry

To

The Principal
Vivekananda College,
Thakurpukur, Kolkata 700063

Date: 18.03.2019

Dear Sir,

This is to inform you that from this academic year, we are introducing one Add-on courses for our students.

Approximately 55 students from Sem- II will be enrolled in the " Achieving SDG goals with the proper knowledge of fertilizers-soil inner relationship " Add-on course. This course is scheduled to take place on Saturdays and Sundays, utilizing the central computer facilities from 3:00 p.m. to 5:00 p.m. Your cooperation is highly appreciated.

Thanking you.

Sanjib Kumar Bhar
18/03/2019

(Dr. Sanjib Kumar Bhar)
Head of the Department
Department of Chemistry
Vivekananda College (Thakurpukur)

Enclosure:

1. Resolution of the departmental meeting held on 16.03.2019
2. Proposal and Course structure for Introducing One Add-on Program

Proposal and Course structure for Introducing Add-on Program on

Achieving SDG goals with the proper knowledge of fertilizers-soil inner relationship

Sustainable Development Goal, SDG-1, 2, 3, 14, 15 which refer 'No poverty', Zero Hunger', 'Good Health and Well-being', 'Life below Water' and 'Life on Land' are among The United Nations' 17 Sustainable Development Goals (SDGs) aim to achieve decent lives for all on a healthy planet by 2030. As things stand, most of them are likely to be missed. This is partly because they fail to address human population growth. Positive, empowering population solutions are key to meeting the SDGs.

With the growing economic advancement, betterment of lifestyle now the people are running for getting a job in service sectors. They are leaving their parental farming occupation. Now a days farming is considered a low standard occupation in our country at the same time the maximum population is spending their whole life depending on farming.

Many steps are taken for the betterment of innovation in agriculture. Government has introduced various policies, increased GDP share for the advancement of ICAR, IISS institutions and subsidies on urea, direct transfer of money in the account of the farmer (DBT) but still due to lack of governance the farmers are now a days not getting all the facilities which government has prescribed for them.

We can consider that the literacy percentage among these farmers are comparatively low from other persons. So it is the obligation of the state and central govt. to efficiently take steps to enrich their farming knowledge introduce them with farming policies. A statistics based report on land that which crop will be more economically beneficial for them and if they have to use any kind of fertilizer what should be the proportion of nutrients. Soil health card' a great initiative by the central government with the help of state to know your soil nutrient properly and that report is valid for 3 years so after passing of validity period recheck their soil parameter and propose them the new fertilizer ratio should be used.

Govt. should initiate a better governance parallel to this policy. Using our young wealth, the students we can reach to these farmers and we can aware them of the govt. initiatives and how they can cooperate with the govt. for the betterment of their economic development and achieving SDG goals, and increase of participation in the GDP growth of the nation. Now a days farmers are not aware of their contribution in GDP and how much important their participation in our viable economy with 'Good health and well-being'.They are an indivisible part of the country where their contribution in World Happiness Index do matter for the overall sustainable growth and make India more proud after achieving a good rank in global position.

Our mission is to form an efficient students group by introducing this add-on programme to them, they can reach to the farmers as maximum as possible and check their soil parameter institutionally and prescribe them the perfect ratio of fertilizer. Parallel to this they can further give them some valuable idea what they can do for getting their soil health card from govt. side and propagate this idea to maximum level. A mission "Sabka Sath, Sabka Vikas" can only be achieved with the willingly participation of this youth and using their capability we can create a better world and as it's a field work strategy so we can consider it'll be enjoyable too for them

The course curriculum of the program /s given below.

Achieving SDG goals with the proper knowledge of fertilizers-soil inner relationship

Sl No.	Content	Training Hours(30hr)
1	**1. Theoritical Explanation**	**7**
	a) SDG Goals related to agriculture	1
	b) What are the types of soil and their primary nutrients	1
	c) What is soil health card and its 12 parameters	1
	d) Why govt. only gives subsidy on urea?	1
	e) Effect of using excess fertilizer.	1
	f) Pollution related to fertilizer.	1
	g) Types of crop season and main crops in our region	1
2	**2. Field Work**	**11**
	a) Explanation session of our program.	3
	b) Question asked and note down their response	2
	c) Sample Collection from the field	4
	d) Preparation and deliveration their soil report	2
2	**3. Routine Soil Tests (The Regular Test)**	**12**
	a) Estimated soil texture and Organic Matter	2
	b) Soil pH	2
	c) Lime requirement (Sikora buffer index)	2
	d) Extractable phosphorus	2
	e) Available potassium (ammonium acetate extractant)	2
	f) Organic matter	2

Achieving SDG goals with the proper knowledge of fertilizers-soil inner relationship

Sl No.	Content	Training Hours(30hr)	Date	Assigned Teacher
1	**4. Theoritical Explanation**	**7**		
	h) SDG Goals related to agriculture	1	30/03/2019	YN
	i) What are the types of soil and their primary nutrients	1	30/03/2019	YN
	j) What is soil health card and its 12 parameters	1	31/03/2019	SG
	k) Why govt. only gives subsidy on urea?	1	31/03/2019	SG
	l) Effect of using excess fertilizer.	1	06/04/2019	SKB
	m) Pollution related to fertilizer.	1	06/04/2019	SKB
	n) Types of crop season and main crops in our region	1	06/04/2019	SKB
2	**5. Field Work**	**11**		
	e) Explanation session of our program.	3	07/04/2019	MS
	f) Question asked and note down their response	2	13/04/2019	YN
	g) Sample Collection from the field	4	20/04/2019	MS
	h) Preparation and deliveration their soil report	2	21/04/2019	YN
2	**6. Routine Soil Tests (The Regular Test)**	**12**		
	g) Estimated soil texture and Organic Matter	2	27/04/2019	SKB
	h) Soil pH	2	28/04/2019	YN
	i) Lime requirement (Sikora buffer index)	2	04/05/2019	SG
	j) Extractable phosphorus	2	05/05/2019	MS
	k) Available potassium (ammonium acetate extractant)	2	11/05/2019	MS
	l) Organic matter	2	12/05/2019	YN

IQAC recommendation

IQAC, Vivekananda College, Thakurpukur, met on 08 July 2020, to envisage, formulate, and design Add-On Courses, beyond the prescribed Curriculum.

A. It was decided that all the departments of Humanities, Science and Commerce would design and formulate 30 hour Add-On Courses for 2020-21 Academic calendar, as per UGC guidelines.

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

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

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

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

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

08/7/20
Co-ordinator
I Q A C
Vivekananda College
Kolkata-700 063

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

Ref. No. .....

Date 06.7.20

Notice

It is hereby notified that Vivekananda College, Thakurpukur, will offer Add-On Courses to All Honours students for the Academic year 2020-21.

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

Ukpodder
08.7.20

Principal
Vivekananda College
Thakurpukur Kol-63

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VIVEKANANDA COLLEGE, THAKURPUKUR
Department of Chemistry

NOTICE

Date: 04.03.2021

A departmental meeting**(online)** will be held on **17.03.2021** at 1:00 p.m. to discuss on the topics mentioned below. All teachers are requested to kindly join the meeting.

Agenda of the meeting:

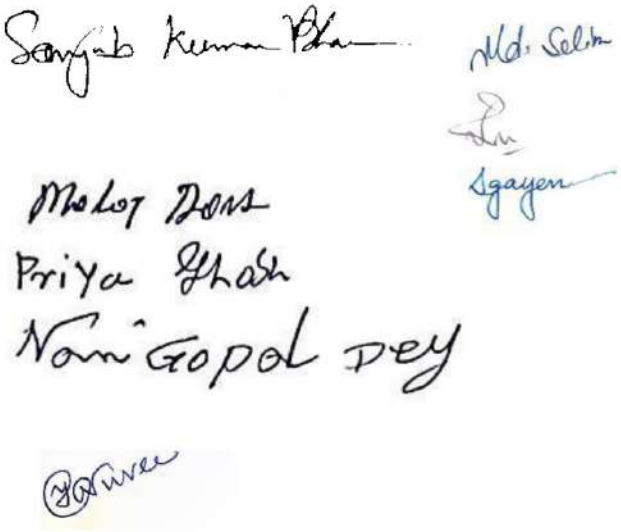
1. Introduction of Add-on course on "Chemistry may have solutions to our plastic trash problem " for UG Sem II Honours students.
2. Miscellaneous

(Dr.Sanjib Kumar Bhar)

Head of the Department
Department of Chemistry
Vivekananda College (Thakurpukur)

VIVEKANANDA COLLEGE, THAKURPUKUR
Department of Chemistry

A. Members present in the meeting: (Online mode) Date: 17.03.2021



B. Minutes of the meeting:

In the Departmental meeting dated 17/03/2021 the teachers of the Department of Chemistry unanimously decided that a 30-hour **online** Add-on Course on " Chemistry may have solutions to our plastic trash problem " would be offered for UG Sem II honours students. It was also decided in the meeting that Dr. Md Selim and Prof. Sirsendu Gayen of Department of Chemistry would be the Course Coordinator for the add-on course on "Chemistry may have solutions to our plastic trash problem" for the Academic session 2020-2021.

C. The course structure of the course on " Chemistry may have solutions to our plastic trash problem" submitted by Dr. Md Selim and Prof. Sirsendu Gayen was accepted by all teachers of the department

D. Certificates would be given to each student at the successful completion of the Course through online mode.

VIVEKANANDA COLLEGE, THAKURPUKUR
Department of Chemistry

To
The Principal
Vivekananda College,
Thakurpukur, Kolkata 700063

Date: 23.03.2021

Dear Sir,

This is to inform you that after successful completion of our first ever add-on-course in the academic year 2020-21 , we are again introducing another add-on-course for our honours students for this academic year.

Approximately 50 students from Sem- II honours will be enrolled in the " Chemistry may have solutions to our plastic trash problem " add-on-course. This course is scheduled to take place on Saturdays and Sundays, utilizing google-meet link from 3:00 p.m. to 5:00 p.m. Your cooperation is highly appreciated.

Thanking you.

Sanjib Kumar Bhar

(Dr. Sanjib Kumar Bhar)
Head of the Department
Department of Chemistry
Vivekananda College (Thakurpukur)

Enclosure:

1. Resolution of the departmental meeting held on 17.03.2021
2. Proposal and Course structure for Introducing One Add-on Program

Chemistry may have solutions to our plastic waste problem

Modernisation gave us plastic, plastic is continuingly giving us problems. What we can do with this plastic?

We can burn it, but it is not a sustainable pathway to destroy plastic think about Delhi now Delhi is completely under smog for many years. After burning these plastics we generate lots of CO2, CO, NOx and other oxides which have an adverse effect on our environment. Their presence can degrade our air quality index, increase in GHG, Global warming a great threat to our Earth. Burning is not the proper solution of plastic.

We can ban it. Can we? Very simple answer is no. we cannot ban plastic yes certain types of plastics can be banned by the intervention of govt. but not the all kinds of plastic can be banned if happen so then we have to slower down our economic progression. Who are going to sacrifice their economic progression for environment? Govt. want a good track record on GDP public wants to get rich and try to use cheap material to lower their expenditure so no one is going to ban plastic (plastic that can be possibly ban by us like polyethene bags, single usable plastics)

The world's mounting plastic trash crisis is hard to solve because it has many dimensions: social, technical, and economic. But because chemistry brought the problem into the world, it doesn't seem unreasonable to look to chemistry for a solution. Such a solution will require that today's chemists figure out how to undo the hard work of their predecessors. The polymers we use as plastics were designed to be durable and stable. They're difficult to break down on purpose.

Now, as the need for finding better ways to handle plastic waste grows, some researchers are finding ways to take plastics apart. Several companies have started up in the past decade to capitalize on these processes. Some methods return plastics to their monomeric form in the hope that the reclaimed building blocks might replace fossil fuels as the feedstock for new materials. Other processes yield fuels or additives for other products.

Developing new recycling methods is especially important as the kinds of polymers we use have started to change. A growing number of products and applications, such as cars and wind turbines, are relying on the strength of composite materials made with fiberglass and carbon fibre. These materials use polymer resins that cannot simply be melted and re-formed like other plastics, and chemists are just starting to develop methods for recycling them in research labs.

But other researchers are thinking about recycling as they develop new materials that might not be as difficult to deal with as today's plastics. These projects could yield resins and plastics that are intrinsically easy to recycle. With such developments, it's conceivable that, one day, chemists might deliver a plastic bottle that can be reincarnated infinitely.

In this course we are not going to recycle plastic into a simpler biodegradable form or we are not going to synthesis some UV degradable and biodegradable plastics. To synthesis some extraordinary polymer or to decompose them we need an extraordinary lab facility though that are not available in our College so we are just going to learn some theoretical approaches which can help us out of this global plastic problem in addition we are going to discuss about some papers published on creation of new degradable plastic and how to destroy plastic chemically. This course work will inspire you in future to choose your career as a scientist how your one proper creation can change the whole world. If you are thinking about to be a researcher and didn't think about on which topic you want to direct yourself then may be this coursework will help you to choose polymer chemistry as your research field.

The course curriculum of the programme is given below.

Chemistry may have solutions to our plastic waste problem

Sr. No.	Content	Course Hour(30hr)
1.	**Polymer**	**12**
a.	What is monomer?	1
b.	What is polymer?	1
c.	Types of polymer	2
d.	Some basics polymer and their structure	2
e.	What is thermosetting polymer	2
f.	What is thermoplastic polymer	2
g.	Differences between them	2
2.	**Plastic Waste**	**10**
a.	Evolution of plastic from a wonderful discovery to a destroyer of environment	2
b.	Effect of plastic in aquatic system	2
c.	Solid waste management	2
d.	Data preparation for various types of plastics are used	2
e.	Drawing of structures of compound using chemdraw	2
3.	**Brief Discussions on some papers regarding plastic treatment and discovery of biodegradable plastics**	**8**
a.	*Science* 2018, DOI: 10.1126/science.aar5498	1
b.	*Green Chem.* 2015, DOI: 10.1039/c5gc01090j	1
c.	*J. Am. Chem. Soc.* 2014, DOI: 10.1021/ja504727u	1
d.	*Science* 2014, DOI: 10.1126/science.1251484	1
e.	*J. Am. Chem. Soc.* 2018, DOI: 10.1021/jacs.8b03257	1
f.	*ACS Sustainable Chem. Eng.* 2016, DOI: 10.1021/acssuschemeng.6b01343	1
g.	*Macromolecules* 2017, DOI: 10.1021/acs.macromol.7b01889	1
h.	*Green Chem.* 2017, DOI: 10.1039/c7gc01737e	1

Chemistry may have solutions to our plastic waste problem

Sr. No.	Content	Course Hour(30hr)	Date	Assigned Teacher
1.	**Polymer**	**12**		
a.	What is monomer?	1	03/04/21	SSD
b.	What is polymer?	1	03/04/21	SSD
c.	Types of polymer	2	10/04/21	SG
d.	Some basics polymer and their structure	2	11/04/21	SKB
e.	What is thermosetting polymer	2	17/04/21	SKB
f.	What is thermoplastic polymer	2	18/04/21	SKB
g.	Differences between them	2	24/04/21	SKB
2.	**Plastic Waste**	**10**		
a.	Evolution of plastic from a wonderful discovery to a destroyer of environment	2	25/04/21	YN
b.	Effect of plastic in aquatic system	2	02/05/21	YN
c.	Solid waste management	2	08/05/21	SSD
d.	Data preparation for various types of plastics are used	2	09/05/21	SSD
e.	Drawing of structures of compound using chemdraw	2	16/05/21	SSD
3.	**Brief Discussions on some papers regarding plastic treatment and discovery of biodegradable plastics**	**8**		
a.	*Science* 2018, DOI: 10.1126/science.aar5498	1	22/05/21	SKB
b.	*Green Chem.* 2015, DOI: 10.1039/c5gc01090j	1	22/05/21	SG
c.	*J. Am. Chem. Soc.* 2014, DOI: 10.1021/ja504727u	1	23/05/21	SSD
d.	*Science* 2014, DOI: 10.1126/science.1251484	1	23/05/21	MS
e.	*J. Am. Chem. Soc.* 2018, DOI: 10.1021/jacs.8b03257	1	29/05/21	YN
f.	*ACS Sustainable Chem. Eng.* 2016, DOI: 10.1021/acssuschemeng.6b01343	1	29/05/21	MS
g.	*Macromolecules* 2017, DOI: 10.1021/acs.macromol.7b01889	1	06/06/21	SKB
h.	*Green Chem.* 2017, DOI: 10.1039/c7gc01737e	1	06/06/21	MS

IQAC recommendation

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

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

18/06/22

Co-ordinator
I Q A C
Vivekananda College
Kolkata-700 063

(033) 2497 6824
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VIVEKANANDA COLLEGE

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

Ref. No..... Date.....

Notice

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

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

29/6/22

Principal

Vivekananda College
Thakurpukur, Kol-63

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Website : www.vckolkata63.org ● email : vivekanandacollege63@gmail.com

VIVEKANANDA COLLEGE, THAKURPUKUR
Department of Chemistry

NOTICE

Date: 30.07.22

A departmental Committee meeting will be held on 04.08.2022 at 1:00 p.m. to discuss on thetopics mentioned below. All the members are requested to kindly attend the meeting.

Agenda of the meeting:

1. Introduction of Add-on course on "Indian Systems of Medicine (Interdisciplinary) " for UG Sem III Honours students.
2. Miscellaneous

Sgayen 30/7/22

Sirsendu Gayen
Head of the Department
Department of Chemistry
Vivekananda College (Thakurpukur)

VIVEKANANDA COLLEGE, THAKURPUKUR
Department of Chemistry

A. Members present in the meeting: Date: 04.08.2022

1. Sgaye 4/8/22
2. Md. Selim 4/8/22
3. Kasturi Sanyal 4/8/22.
4. Malay Dolui 4-8-22
5. Priya Ghosh 4.8.22
6. Nani Gopal Dey

B. Minutes of the meeting:

In the Departmental meeting dated 04/08/2022 the teachers of the Department of Chemistry unanimously decided that a 30-hour Add-on Course on " Indian Systems of Medicine (Interdisciplinary)" would be offered for UG Sen III students. It was also decided in the meeting that Dr. Md. Selim and Prof. Sirsendu Gayen of Department of Chemistry would be the Course Coordinator for the Add-On Course on Indian Systems of Medicine (Interdisciplinary) for the Academic session 2022-2023.

C. The course structure of the course on " Indian Systems of Medicine(Interdisciplinary)**" submitted by** Dr. Md. Selim and Prof. Sirsendu Gayen **was accepted by all teachers of the department**

D. Certificates would be given to each student at the successful completion of the Course.

VIVEKANANDA COLLEGE, THAKURPUKUR
Department of Chemistry

To
The Principal
Vivekananda College,
Thakurpukur, Kolkata 700063

Date: **11.08.2022**

Dear Sir,

This is to inform you that from this academic year, we are introducing **one Add-on** courses for our Honours students of our department.

Approximately 25 students from Sem III Chemistry Hons. will be **enrolled in the "** Indian Systems of Medicine (Interdisciplinary) " Add-on course. This course **is scheduled to** take place on Saturdays and Sundays, utilizing the central computer facilities **from 3:00 p.m.** to 5:00 p.m. Your cooperation is highly appreciated.

Thanking you.

Sgayen 11/8/22

(Sirsendu Gayen)
Head of the Department
Department of Chemistry
Vivekananda College (Thakurpukur)

Enclosure:

1. Resolution of the departmental meeting held on 04.08.2022
2. Proposal and Course structure for Introducing One Add-on Program

Proposal and course structure for Introducing Add-on Program on "**A conceptual study on Indian Systems on Medicine (Interdisciplinary)**"

The basic foundation is the fundamental doctrine according to which whatever present in the Universe (macrocosm) should be present in the body (the microcosm). It has been conceptualized that the universe is composed of five basic elements named Prithvi (Earth), Jala (Water), Teja (Fire), Vayu (Air) and Akash (Space/Ether). The human body is derived from them in which these basic elements join together to form what are known as 'Tridoshas' (humors) named as Vata, Pitta and Kapha. These humors govern and control the basic psycho-biological functions in the body. In addition to these three humors, there exist seven basic tissues (sapthadhatus)- Rasa, Rakta, Mamsa, Meda, Asthi, Majja and Shukra- and three waste products of the body (mala) such as faeces, urine and sweat. Healthy condition of the body represents the state of optimum equilibrium among the three doshas. Whenever this equilibrium is disturbed due to any reason- disease condition results.

It is a well-known fact that Traditional Systems of medicines always played important role in meeting the global health care needs. They are continuing to do so at present and shall play major role in future also. The system of medicines which are considered to be Indian in origin or the systems of medicine, which have come to India from outside and got assimilated in to Indian culture are known as Indian Systems of Medicine. India has the unique distinction of having six recognized systems of medicine in this category. They are-Ayurveda, Siddha, Unani and Yoga, Naturopathy and Homoeopathy. Though Homoeopathy came to India in 18th Century, it completely assimilated in to the Indian culture and got enriched like any other traditional system hence it is considered as part of Indian Systems of Medicine. Apart from these systems- there are large number of healers in the folklore stream who have not been organized under any category. In the present review, attempt would be made to provide brief profile of three systems to familiarize the readers about them so as to facilitate acquisition of further information.

Our vision is to establish a strong knowledge based use of Indian medicinal systems. Now each and every kinds of drugs which we are prescribed to take, have many side effects as well as they are prepared in a chemical factory that's why there can be contamination of many constituents. But we can cure ourselves by proper knowledge of Indian system of medicine. May be it cannot cure ourselves as fast as an allopathy medicine can do but it is sustainable for our health compared to them. Some cure can only be achieved through yoga and a good planning diet. Some curse we have throughout this continuous process of modernisation, are obesity, diabetic, blood pressure, anemia and additional many psychotropic illness. Yes, they can be cured and if we want to we can prevent these diseases just with the help of some good routine work and diet. "Prevention is always better than cure".

The course curriculum of the program is given below

A conceptual study on Indian Systems on Medicine (Interdisciplinary)

Sl No.	Content	Training Hours(30hr)
1	**1. Basic theoretical explanation**	**12**
	a) What is Indian system of medicine	1
	b) Types of Indian system of medicine	1
	c) A brief discussion on Ayurveda	2
	d) A brief discussion on yoga and its effectiveness	2
	e) What is unani?	2
	f) Can homeopathy be a solution of allopathy?	2
	g) AYUSH	2
2	**2. Herbs in our daily life.**	**14**
	a) Tulsi	2
	b) Kalmegh	2
	c) Neem	2
	d) ashvagandha	2
	e) Turmeric	2
	f) Mint and Aleovera	2
	g) Various types of spices	2
3	**3. Preparation of extraction and observe their UV and IR data**	**04**

Sl No.	Content	Training Hours(30hr)	Date	Assigned Teacher
1	**4. Basic theoretical explanation**	**12**		
	h) What is Indian system of medicine	1	05/11/22	KS
	i) Types of Indian system of medicine	1	05/11/22	KS
	j) A brief discussion on Ayurveda	2	06/11/22	SS
	k) A brief discussion on yoga and its effectiveness	2	12/11/22	MS
	l) What is unani?	2	13/11/22	SS
	m) Can homeopathy be a solution of allopathy?	2	19/11/22	MS
	n) AYUSH	2	20/11/22	SS
2	**5. Herbs in our daily life.**	**14**		
	h) Tulsi	2	26/11/22	SG
	i) Kalmegh	2	27/11/22	SS
	j) Neem	2	03/12/22	SG
	k) ashvagandha	2	04/12/22	SS
	l) Turmeric	2	10/12/22	KS
	m) Mint Aleovera	2	11/12/22	SS
	n) Various types of spices	2	17/12/22	KS
3	**6. Preparation of extraction and observe their UV and IR data (Theoretical Perspective only)**	**4**	18/12/22 & 24/12/22	MS & KS