



"Educating hearts and minds"

# HOLY CROSS COLLEGE

ACCREDITED BY NAAC WITH 'A' GRADE

Tripura University Reg. Code: 17

Jubatara, P.O. Lembucherra, Tripura West Pin-799210

Phone: 0381-2915930, +91 9402315672

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Web: www.holycrosscollege.in

## DEPARTMENT OF HUMAN PHYSIOLOGY

### Notice

Date: 24.11.2022

This is the general information for all the students and Faculty members to notify that the classes for the 'Certificate Course in Laboratory Techniques', offered by Department of Human Physiology, is going to start from 2<sup>nd</sup> December, 2022, Friday onwards.

This is notified as per the approval from the authorities.

Course Coordinator

For the 'Certificate Course in Laboratory techniques  
Department of Human Physiology  
Holy Cross College, Agartala

Department of Human Physiology,  
HOLY CROSS COLLEGE, AGARTALA



**DEPT. OF HUMAN PHYSIOLOGY**  
**Holy Cross College, Agartala**

**Certificate / Add-on Course (non-Credit based)**

Course Name: 'Certificate Course in Laboratory Techniques'

Course duration: 6 months

Eligibility: Higher Secondary Pass.

Course fee: Rs. 1000/-

Course Credit: 40 (40 hrs total, 1hr/class, 2 classes/week)  
Includes Theory and Practical classes.

Seat: 30 nos.

Course offered by: Dept. of Human Physiology  
Holy Cross College, Agartala

Course Coordinator: Dr. Sandeep Roy Sarkar  
Asst. Professor, Human Physiology

**Programme outcomes:** After completing H.S., students are enabled to develop academic competence and are introduced to the forefront of current knowledge in different medical laboratory techniques. The practical modules cover hematology, experimental, biochemical, nutritional biology, uses of different techniques, etc. The lecture modules include human physiology, biochemistry, immunology, experimental physiology, etc.

**Programme specific outcomes:** At the end of the course students should have an enhanced knowledge and appreciation of different medical laboratory techniques. Can understand the functions of important physiological systems. Be able to perform, analyses and report on experiments and observations. Students will become skilled personals in different medical laboratory techniques.

**Couse specific outcomes:** Clear concept about the cell organelles and their function. Detail about the haematological sample preparation and observation of principle haematological parameters and analyses of the obtained results. Detail about the plasma/serum preparation and the estimation of crucial serum parameters which have important clinical significance. Principle roles of digestive tract, digestive glands with elaborate anatomy and physiology. Determination of physiological and anthropometric parameters. Detail about the endocrine physiology and the different glands. Principal role of biomolecules and vitamins. Evaluation of nutritional status of population. Evaluative explanation on basic immunology. Pubertry, adolescence, Woman's health and hygiene and how-to taking care of elderly.

## **SYLLABUS**

### **Theory**

**Total Marks — 50**

1. Basic concept on different physiological systems of human body.
2. Blood-composition, function.
3. Human ABO blood grouping system.
4. Blood pressure: Hypertension and hypotension.
5. TC, DC
6. Armeth Index, ESR
7. MCV, MCHC
8. Immune system- Components and Functions.
9. Hormone- its role on growth and development.
10. Basic concept on digestive system.
11. Food groups- their physiological importance.
12. Malnutrition.
13. Vitamin
14. Puberty & Adolescence.
15. Menstruation and menarche.
16. Lactation- importance and role of diet.
17. Type I and type II Diabetes. Diabetes mellitus vs insipidus.
18. Arthritis- basic concept.
19. Woman's health and hygiene.
20. Taking care of elderly.

### **Practical**

**Total Marks — 50**

1. Microscopy.
2. Preparation of blood film
3. Identification of blood cells.
4. Determination of blood group
5. Determination of BT, CT
6. Determination of Hb%
7. Measurement of Pulse Rate (PR).

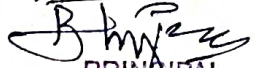
8. Measurement of Blood Pressure (BP).
9. Anthropometry-common measurements (Height, Weight, BMI).
10. Qualitative estimation of urine sample.
11. Human Skeleton.
12. Study of Human reflexes (Plantar/Patellar).
13. Rinne's/ Weber's test for deafness.
14. Test for colour vision
15. Basics of First Aid.
16. Woman's health and hygiene.

**Distribution of marks:**

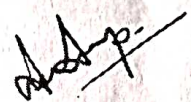
Total Marks:	100
Internal assessment:	20
Term end exam:	80
Theory:	40
Practical (Two experiment, 15x2):	30
Viva Voce	10

**Grading system:**

Level	Excellent	Very Good	Good	Above Average	Average	Below average	Poor	Fail
<b>Grade</b>	<b>A+</b>	<b>A</b>	<b>B+</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>
Marks range	90-100	80-89	70-79	60-69	50-59	40-49	33-40	0-32

Approved  
  
 PRINCIPAL  
 HOLY CROSS COLLEGE  
 AGARTALA

**Dated: 10/12/2021**

  
 (Dr. Sandeep Roy Sarkar)  
**Course Coordinator**  
 Asst. Professor, Dept. of Human Physiology  
 Holy Cross College, Agartala



# HOLY CROSS COLLEGE

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Jubatara Campus, Lembucherra, West Tripura, India  
Phone: (011-91) 2343555 Fax: (011-91) 2342572

## Department of Human Physiology

### Notice

Date: 2<sup>nd</sup> December, 2021

This is the general information to notify that Department of Human Physiology will be offering 'Certificate Course in Laboratory Techniques' for all. The interested students are hereby requested to collect the admission form from college office and also to submit the filled-in form for admission within 6<sup>th</sup> to 20<sup>th</sup> December. Course fee for the aforesaid course will be Rs. 1000/- (one thousand only).

*[Handwritten Signature]*  
2-12-2021

Course Coordinator  
Certificate Course in Laboratory Techniques  
Dept. of Human Physiology



# HOLY CROSS COLLEGE

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## Department of Human Physiology

### Notice

Date: 21<sup>st</sup> December, 2021

This is the general information to notify that the students admission list for the 'Certificate Course in Laboratory Techniques' under Department of Human Physiology is hereby published, as attached.

Course Coordinator  
Certificate Course in Laboratory Techniques  
Dept. of Human Physiology

## Certificate Course in Laboratory Techniques

Offered by- Dept. of Human Physiology

Holy Cross College, Agartala

w.e.f. December, 2021

Sl no	Name of Candidates	Semester & Contact No.	Date of online Registration	Date of offline Registration	Course fee submitted	Signature of the candidate
1	Disha Chakraborty	'				Rajendra Chakraborty
2	Sanjana Sen	1 <sup>st</sup> Sem 1609280546				Sanjana Sen
3	Saptasmi Nath	1 <sup>st</sup> Sem 9366852690				Saptasmi Nath
4	Debasmita Datta	1 <sup>st</sup> Sem. 7005577064				Debasmita Datta
5	Sujatha Ghosh	3 <sup>rd</sup> sem 9366623387				Sujatha Ghosh
6	Baishali Choudhury	3 <sup>rd</sup> Sem 8837344173				Baishali Choudhury
7	Sourita Poddar	3 <sup>rd</sup> Sem 9485333277				Sourita Poddar
8	Rimi Singha	3 <sup>rd</sup> sem 8415030221				Rimi Singha.
9	Rohit Debarma	3 <sup>rd</sup> sem 6909556426				Rohit Debarma
10	Samarpan Das	3 <sup>rd</sup> Sem 9366084085				Samarpan Das
11	Sruja Debarma	3 <sup>rd</sup> sem 7005508067				Sruja Debarma
12	Utsarita Bhattacharjee	3 <sup>rd</sup> Sem 8787310268				Utsarita Bhattacharjee
13	Jyotishree Chakraborty	3 <sup>rd</sup> Sem 7005582206				Jyotishree Chakraborty
14	Songjukta Datta	3 <sup>rd</sup> Sem 9436188760				Songjukta Datta
15	Abantika Chakraborty	3 <sup>rd</sup> Sem 6033195912				Abantika Chakraborty
16	Anuleya Deb	3 <sup>rd</sup> Sem 8787796-849				Anuleya Deb
17	Subhan Kari Bhattacharjee	3 <sup>rd</sup> sem. 8837360418				Subhan Kari Bhattacharjee.

18.	Pohor Debbarma	1st Sem 9863237360				Pohor Debbarma
19.	Deepangkar Chirim Sangma	5 <sup>th</sup> Sem 7075973919				Deepangkar Chirim Sangma.
20.	Siyari Jamatia	3rd sem 7005528590				Siyari Jamatia.
21.	Tanujn Taipura	3rd sem 8731067328				Tanujn Taipura.

- 22. Prajna Debbarma 3rd sem 7629057409
- 23. Niharika Begam 3rd 9383056086
- 24. Snigdha Roy 6009559862 (3rd sem)
- 25. Satadeepa Chakraborty 8416042934 3rd sem -

- Prajna Debbarma.
- Niharika Begam.
- Snigdha Roy.
- Satadeepa Chakraborty

17-12-2021

Course Coordinator  
**HEAD**  
Department of Human Physiology,  
HOLY CROSS COLLEGE, AGARTALA

- 26. Naimure Nakar Munnie 7005223382 3rd sem

Naimure Nakar



List of students Registered for the course  
Students admitted for the course

HUMAN PHYSIOLOGY			
SL.NO	NAME OF THE STUDENT	SEM	ADD ON COURSE
1	SOURITA PODDER	3RD	COURSE IN LABORATORY TECHNIQUES
2	BAISHALI CHOUDHURI	3RD	COURSE IN LABORATORY TECHNIQUES
3	SNIGDHA GHOSH	3RD	COURSE IN LABORATORY TECHNIQUES
4	RIMI SINGHA	3RD	COURSE IN LABORATORY TECHNIQUES
5	UTSARITA BHATTACHARJEE	3RD	COURSE IN LABORATORY TECHNIQUES
6	ROHIT DEBBARMA	3RD	COURSE IN LABORATORY TECHNIQUES
7	SRIJA DEBBARMA	3RD	COURSE IN LABORATORY TECHNIQUES
8	JYOTISHREE CHAKRABORTY	3RD	COURSE IN LABORATORY TECHNIQUES
9	SAMARPAN DAS	3RD	COURSE IN LABORATORY TECHNIQUES
<del>10</del>	SAMARPAN DAS	3RD	<del>SPOKEN ENGLISH LABORATORY TECHNIQUES</del>
11	SANJANA SEN	1ST	COURSE IN LABORATORY TECHNIQUES
12	DISHA CHAKRABORTY	1ST	COURSE IN LABORATORY TECHNIQUES
13	RIYA ACHARJEE	1ST	COURSE IN LABORATORY TECHNIQUES
14	SHREYASI CHAKRABORTY	1ST	COURSE IN LABORATORY TECHNIQUES
15	DEEPANGKAR CHISIM SANGMA	5TH	COURSE IN LABORATORY TECHNIQUES
16	SUBHANKARI BHATTACHARJEE	3RD	COURSE IN LABORATORY TECHNIQUES
17	ANUSUYA DEB	3RD	COURSE IN LABORATORY TECHNIQUES
<del>18</del>	SNIGDHA GHOSH	3RD	<del>SPOKEN ENGLISH LABORATORY TECHNIQUES</del>
<del>19</del>	RIMI SINGHA	3RD	<del>SPOKEN ENGLISH LABORATORY TECHNIQUES</del>
20	DEBASMITA DATTA	1ST	COURSE IN LABORATORY TECHNIQUES
21	POHOR DEBBARMA	1ST	COURSE IN LABORATORY TECHNIQUES
22	ABANTIKA CHAKRABORTY	3RD	COURSE IN LABORATORY TECHNIQUES
23	SONGJUKTA DATTA	3RD	COURSE IN LABORATORY TECHNIQUES
24	SAPTAPARNI NATH	1ST	COURSE IN LABORATORY TECHNIQUES

- 22 Satadeep Chakraborty 3rd - BSc - Elect  
 23 Snigdha Roy 3rd - BSc - Elect  
 24 Naimur Nahar Munni 3rd - " "  
 25 Siyari Jamatia 3rd " "  
 26 Prajna Debbarma 3rd Botany

*[Signature]*  
 23.12.2021  
**HEAD**  
 Department of Human Physiology,  
 HOLY CROSS COLLEGE, AGARTALA


DEPT. OF HUMAN PHYSIOLOGY  
Holy Cross College, Agartala

**NOTICE**

Date: 24-12-2021

Dear Students and Faculty members,

This is to inform you all that the classes for the '**Certificate Course in Laboratory Techniques**', offered by Dept. of Human Physiology, Holy Cross College, Agartala, is going to start from Monday, **27<sup>th</sup> December, 2021** onwards. This is notified as per the approval from the authority.



(Dr. Sandeep Roy Sarkar)  
Course Coordinator  
Asstt. Professor, Human Physiology

**Department of Human Physiology,  
HOLY CROSS COLLEGE, AGARTALA**



# HOLY CROSS COLLEGE

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Jubatara Campus, Lembucherra, West Tripura, India  
Phone: (011-91) 2343555 Fax: (011-91) 2342572

## Notice

Date: 1<sup>st</sup> December, 2021

This is to inform all concerned that the following members of the Department of Human Physiology will be submitting the draft syllabus of Certificate Course In Laboratory techniques to the college authority within 10 days from the notification:

1. Dr. Sandeep Roy Sarkar, Course Coordinator & Asst. Professor, Dept. of Human Physiology.
2. Dr. Balaram Sutradhar, Asst. Professor, Dept. of Human Physiology.
3. Dr. Susmita Saha, Asst. Professor, Dept. of Human Physiology.

Sd/-  
Principal  
Holy Cross College, Agartala



# HOLY CROSS COLLEGE

Jubatara Campus, Lembucherra, West Tripura, India  
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## Notice

Date: 13<sup>th</sup> May, 2022

This is the general information to notify that the Exam. for the December, 2021 - May, 2022 batch of 'Certificate Course in Laboratory Techniques' will be held on Wednesday, 18<sup>th</sup> May, 2022 in Hall no. F1-4, Time: 1pm.

*[Handwritten Signature]*  
13-5-22

Course Coordinator  
Certificate Course in Laboratory Techniques  
Dept. of Human Physiology

**Dept. of Human Physiology**  
**Holy Cross College, Agartala**

**Certificate Course in Laboratory Techniques**

**Batch: Dec., 2021 – May, 2022**

Sl. No.	Name of registered students	Department belong to	Semester belong to	Grades obtained
1	MISS. SOURITA PODDER	H. Phy.	3rd	A
2	MISS. BAISHALI CHOUDHURI	H. Phy.	3rd	A+
3	MISS. SNIGDHA GHOSH	H. Phy.	3rd	A
4	MISS. RIMI SINGHA	H. Phy.	3rd	B+
5	MISS. UTSARITA BHATTACHARJEE	H. Phy.	3rd	B+
6	MR. ROHIT DEBBARMA	H. Phy.	3rd	B+
7	MISS. SRIJA DEBBARMA	H. Phy.	3rd	B
8	MISS. JYOTISHREE CHAKRABORTY	H. Phy.	3rd	A
9	MR. SAMARPAN DAS	H. Phy.	3rd	A
10	MISS. SANJANA SEN	H. Phy.	1 <sup>st</sup>	B+
11	MISS. DISHA CHAKRABORTY	H. Phy.	1 <sup>st</sup>	A+
12	MISS. RIYA ACHARJEE	H. Phy.	1 <sup>st</sup>	A
13	MISS. SHREYASI CHAKRABORTY	H. Phy.	1 <sup>st</sup>	A
14	MR. DEEPANGKAR CHISIM SANGMA	H. Phy.	5 <sup>th</sup>	A+
15	MISS. SUBHANKARI BHATTACHARJEE	H. Phy.	3rd	B+
16	MISS. ANUSUYA DEB	H. Phy.	3rd	B+
17	MISS. DEBASMITA DATTA	H. Phy.	1 <sup>st</sup>	A
18	MR. POHOR DEBBARMA	H. Phy.	1 <sup>st</sup>	A
19	MISS. ABANTIKA CHAKRABORTY	H. Phy.	3rd	A+
20	MISS. SONGJUKTA DATTA	H. Phy.	3rd	A+
21	MISS. SAPTAPARNI NATH	H. Phy.	1 <sup>st</sup>	A
22	MISS. SATADEEPA CHAKRABORTY	B.Sc. General	3rd	B+
23	MISS. SNIGDHA ROY	B.Sc. General	3rd	B+
24	MISS. NAIMUR NAHAR MUNNIE	B.Sc. General	3rd	A+
25	MISS. SIYARI JAMATIA	B.Sc. General	3rd	A+
26	MISS. PRAJNA DEBBARMA	Botany	3rd	A

*[Signature]*  
07-06-22  
Course Coordinator



# HOLY CROSS COLLEGE

Agartala

Affiliated with Tripura University (A Central University) An ISO 9001:2015 Certified Institution

Accredited by NAAC with 'A' Grade

**This is to certify that**

**SOURITA PODDER**

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has been a student of Holy Cross College  
(From December, 2021 to May, 2022) and

She/ He has successfully completed the

**Six Months Certificate Course on**

**LABORATORY TECHNIQUES**

offered by

Department of Human Physiology

with the following Grade: **A**



*Fr. Benny Jose*

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Principal

Holy Cross College

June, 2022.

HOLY CROSS COLLEGE, Jubatara, Lembucherra P.O., West Tripura -799210

Phone: 0381- 2865222, 9402315672, Web : [www.holycrosscollege.in](http://www.holycrosscollege.in)

**Department of Human Physiology  
Holy Cross College, Agartala**

June, 2022

**Report on 'Certificate Course in Laboratory Techniques'.**

The admission notice for the Certificate Course in Laboratory Techniques was circulated in the college website on the month of November, 2021. The registration was closed after fulfilling all the seats on December, 2021. The inaugural classes of this certificate course for 1st batch started by the month of December, 2021. The batch consist of students from different Semester of Zoology, Botany, Human Physiology and B.Sc. General Department of Holy Cross College. The classes were held minimum 2 days in a week, including practical, under the supervision of faculty members of Dept. Human Physiology.

In the first class, the syllabus of the course was explained among the students. The students were introduced to different laboratory equipment. The classes were simplified and elaborated by using projector and lab equipment regularly so that the students have minimum doubt. The theory module includes: basic concept on different physiological systems of human body, blood, immune system, vitamins, puberty & adolescence, menstruation, lactation, type I and type II diabetes, arthritis, woman's health and hygiene and how to take care of elderly people, etc. And the practical module includes: microscopy, preparation of blood film and identification of blood cells, determination of blood group, BT, CT, Hb%, TC, DC, blood pressure, usage of colorimeter, anthropometric measurements, qualitative estimation of urine sample, estimation of SGOT/SGPT, basics of fast aid and bacterial cell culture, etc.

After completion of syllabus the examination of the course was held on the month of May, 2022. It comprises of MCQ, practical and viva, which was a standard and effective format to evaluate the knowledge and skills of a student. This examination was necessary for the students enrolled in it in order to earn the course certificate, which was awarded as a proof. All the students cleared the examination with flying colours. The course not only enhanced students' knowledge but also skills and communication. Theory class can give ideal knowledge but practical ones teaches students to how to apply that knowledge, the errors we may face and ways to overcome those errors.

Along with diagnostics applications of the different laboratory techniques, it also introduces one to different field of science and their practical purposes, so that one can identify a respective field to pursue. This is most beneficial to the students of Life Science of our college.

  
27-06-22  
Course Coordinator