

Date: 07.06.2021



**The Heritage College
Department of Mathematics
Kolkata 700107**

Office / THC / Internship / 2021

Sub: Summer Internship Program “THC_SIM’21” at The Heritage College, Kolkata 700107

Applications are invited from eligible students for the internship (online mode) program “*The Heritage College Summer Internship in Mathematics-2021 (THC_SIM’21)*” during the summer vacation-2021 in the Department of Mathematics at The Heritage College, Kolkata 700107 at undergraduate level **Mathematics**, as per the following conditions.

1. The internship will be offered during the usual summer vacation period from 15th June to 31st July 2021, in line with the academic calendar of The Heritage College, Kolkata 700107. The intern will attend class sessions and will be trained regularly related to several areas of mathematics, minor research methodology, usage of tools, etc. along with weekly presentations during the month of June. During July the intern will be required to write down minor research in the area of undergraduate level mathematics of his choice.
2. **Eligibility:**
 - (a) The student must have taken admission to UG/PG course in science within 2015-2020
 - (i) pursuing/completed B.A./B.Sc. with *Mathematics as one of the part* (Honors / General) of the syllabus OR
 - (ii) pursuing/completed B.Tech/B.E with *Mathematics as one of the part* of the syllabus OR
 - (iii) pursuing/completed M.Sc. in Mathematics
 - (b) At least 60% OR at least 6.0 as CGPA including last semester/year passed.
 - (c) Students of Final semesters are also eligible to apply.
 - (d) Exceptional students of other semester/year are also eligible to apply.

3. **How to Apply:**

Interested students need to fill in an online application form with all necessary details and submit it on or before **2.00 PM, 12th June-2021**. The link of online application will start from **07th May 2021** onwards and is shared below, also in telegram group as well as in *The Heritage College website*.

The students will be required to upload their recent passport size picture, digital signature, all testimonials in PDF, and one short PowerPoint presentation/MS Word document about their project/research proposals or interests while filling in the application form.

The research/project proposal must contain a detailed description of the research problem that

the student wishes to work on, along with a brief introduction to the problem, the proposed work plan, and the expected outcome of the project work. This is recommended because, *students submitting applications along with proposals will be given first preference.*

4. Selection Process:

Once the application is successfully submitted on or before the deadline, the first round of selection through eligibility criteria and research proposals/interests will be made. Selected applicants will be required for appearing in an *Online Entrance Examination* which will be held on **13th June 2021** at 10 A.M. The applicant must join the telegram group (the joining link is shared below). The link to the online entrance examination will be shared in the Telegram group *only*. No separate communication to any individual would be made regarding this matter.

The syllabus of the entrance test is undergraduate level Mathematics only. The mode of conducting the test is online on MCQ format including some short answers which would require one or two-line statements only. The updates about the test will be made in the telegram group only.

The final merit list based on performance on the Entrance test and project proposals will be prepared without any separate waiting list, and will be shared in the telegram group on **Sunday 13th June 2021 at 8 PM**. The official merit list will be published on the college website of The Heritage College on **Monday 14th June 2021 at 10 AM**.

The selected students will be required to join a Google Classroom created especially for class session purpose. The class-code of the same along with further instructions will be sent through mail to their personal email ids.

5. Internship Process:

The entire internship is divided into two phases: **Phase-I** and **Phase-II**. Everything in details will be shared in telegram group to the selected applicants.

The selected candidates will be instructed through a telegram group to join a Google classroom specially designed for THC_SIM'21 purpose. **Phase-I** will start from *15th June 2021* and will continue till *30th June 2021*. The interns will be trained daily regularly through special lectures on special areas of undergraduate level mathematics, research skills, presentation techniques, research papers, etc. They will be monitored and their progress will be preserved. Along with this, every week they will require to present their understanding through slideshow.

On June 30th the interns will be declared to have completed **Phase-I** successfully and will be given certificates of completion of Phase-I. However, if the intern desires to pursue further and complete some research work under the supervisor, he/she will have to fill in a registration form and undertaking for Phase-II. From *5th July 2021 till 31st July 2021* the interns will be encouraged and supervised to write down a minor research or project work according to his preferred area of research. On successful completion, a Phase-II certificate will be provided.

The reason that the internship is divided into two separate phases is that, if any intern wishes to discontinue or is unable to continue or provides poor performance but an internship certificate is necessary for partial fulfillment of their academic course, he/she will be allowed to leave with Phase-I certificate. However, those who will manage to stay till the end and will be able to write a paper will be awarded a Phase-II certificate. Moreover, their research paper will be published in a book series in Scopus indexed journal, the communication process of which is initiated already.

6. Terms and Conditions.

- (i) The entire internship will be done Online only to get maximum benefits.
- (ii) No financial assistance will be provided from The Heritage College. The interns will have to meet their expenses on their own.
- (iii) No registration fees would be required to fill in application form. In fact, most of all, the interns will never be required to pay for anything. The entire process is absolutely free.
- (iv) **Best 5 interns** will be selected for “**Interns of the Year 2021-Award**” after successful completion of Phase-I.
- (v) **Best 5 papers** will be selected for “**THC_SIM: Student Research Award 2021**” after successful completion of Phase-II.
- (vi) **Top 5 presentations** will be selected for “**THC_SIM: Best Presentation Award 2021**” from both Phase-I and Phase-II separately.
- (vii) Even though the internship is generally for a duration of 15+30 days, THC-Kolkata reserves the right to discontinue the program at any time for reasons deemed to be valid by the Institute, without assigning any reasons.
- (viii) Under specific circumstances, the Internship Program may get extended to 90 days with mutual agreement between the student and the faculty supervisor, subject to the consent of THC-Kolkata and the parent institution.
- (ix) All the interns shall strictly follow the rules and regulations of the Institute. The “*Students’ Conduct and Disciplinary Code*” of the Institute will be applicable to the interns as well. Any violation will lead to immediate termination of the internship and the matter will be reported to the parent institution. In addition to this, appropriate action will be taken against the intern as decided by the The Principal, The Heritage College, Kolkata 700107.
- (x) Upon successful completion of the internship, the interns will be awarded “**THC-SIM’21: Phase-I**” and/or “**THC-SIM’21: Phase-II**” certificates.

7. Awards/Certificates:

- (i) **Interns of the Year 2021-Award** / Total = 5 / Phase-I only
- (ii) **THC_SIM: Student Research Award 2021** / Total = 5 / Phase-II only
- (iii) **THC_SIM: Best Presentation Award 2021** / Total = 5+5 / Phase-I and II, both
- (iv) **THC-SIM’21: Phase-I**” and/or “**THC-SIM’21: Phase-II**” completion certificates (all)

8. Publication: Springer publication (SCOPUS indexed-Communicated). The interns who will complete Phase-II, will get chance to publish their own research works in Springer book series under the title “Recent Advances in Undergraduate Mathematics-2021”, evidently which would be Scopus Indexed. Final notification will be made as soon as the confirmation is received from Editor.

9. Expected Outcome.

- (i) Upon completion of the Summer Internship program THC_SIM'21: Phase-I, the student has to submit a report of the work done by him/her which includes the sections similar to the following: Introduction, Motivation and Objectives, Literature Survey, Problem Definition, Methodology/Design, Implementation (experimental set-up / hardware / algorithm / simulation etc.) details, Results or product developed, Discussions, Conclusions, and References.
- (ii) The student has to deliver presentation about the work done in front of the supervisor and panel of evaluators in the respective department/institute level committee.
- (iii) Upon completion of Phase-II of the internship, the student is expected to come up with a tangible contribution / innovation such as a novel research / design / concept / experimental set-up, which in turn can lead to a publication.

10. Important Points.

Be ready before filling in the application forms with the following:

- (i) Recent passport size color photograph.
- (ii) All testimonials in a single PDF.
- (iii) Digital Signature.
- (iv) At least one moderate PowerPoint Presentation / MS Word write up, of research / project proposal.
- (v) Deadline for filling in and submission of application form online: **12th June 2021, 11PM.**
- (vi) It is recommended to figure out in which area you would like to do your project research. The biggest advantage in THC_SIM'21 is its flexibility. The interns will be given full freedom and encouragement to choose their own area of research interest. However if they are unable to decide so, a comprehensive list of suggestive list of project proposals is already prepared from which the interns can decide their project/research.
- (vii) The link to join the telegram group is : <https://t.me/joinchat/N1tYNkqWpTE3NGFI>
- (viii) The online application process will commence from **07th June 2021** onwards. The link is
- (ix) The applicants are advised to check website on regular basis for updates, if any.

11. Dates:

Submission of Application Starts: 07th June 2021.

Deadline of submission of application: 12th June 2021, 11PM.

Entrance Exam: 13th June, 10 AM.

List of selected interns: 13th June, 8PM (telegram) and 14th June, 10AM (THC-Website).

Communication to selected interns for Pre-requisites: 14th June, 6PM (THC-Website + Email).

Commencement of Internship Program: 15th June, 9.30 AM.

Phase-I: 15th June-30th June 2021.

Certificates for Phase-I interns: 1st July-3rd July 2021(ALL)

Phase-II: 5th July-31st July 2021

Certificates for Phase-II interns only: 1st August-3rd July 2021.

12. Links:

- (i) Telegram group: <https://t.me/joinchat/N1tYNkqWpTE3NGFI>
- (ii) Application Link: <https://forms.gle/djGK13xDzypadpXQ9>

13. Contact:

For further communications and clarification or any kind of assistance, please contact the following. It is also recommended to contact through call, instead of messaging the contact person.

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By,
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