



SREE CHITRA TIRUNAL INSTITUTE FOR MEDICAL SCIENCES AND TECHNOLOGY

TRIVANDRUM – 695011, KERALA, INDIA

**An Institute of National Importance under Government of India with the status of
University established by an Act of Parliament (No.52 of 1980)**

THE PhD MANUAL- 2017

**(ACHUTHA MENON CENTRE FOR HEALTH SCIENCE STUDIES
AND OFF-CAMPUS PH.D PROGRAMMES IN PUBLIC HEALTH
AFFILIATED TO SCTIMST)**

1. INTRODUCTION

Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST) was established by an Act of Parliament in 1980 as an Institute of National Importance with the status of a University.

The genesis of the Institute can be traced to the gift of a hospital by the erstwhile royal family of Travancore, to the state of Kerala, to commemorate the sixtieth birthday of the last monarch, Sree Chitra Tirunal Balarama Varma. Conversion of this gift to an autonomous center for specialized health care for cardiovascular and neurological diseases was initiated by the then Chief Minister of Kerala, Shri C. Achutha Menon in 1973. The Sree Chitra Tirunal Medical Centre, as it was called, had already established its credibility as a center of excellence for hospital-based services by the time it was elevated to the status of an Institute of National Importance by Government of India in 1980.

SCTIMST is a unique institution with a Biomedical Technology Wing, a Hospital Wing, and Public Health Sciences Wing. The main purpose of setting up this institution was to bring about a convergence of medical sciences, health care and technology, which was expected to provide the engine of growth for development of indigenous technology and medical devices. This was necessary as there was hardly any attention paid to the development of technology for health care in this country; the industry was unwilling or unable to invest in research and development (R&D) in health care technology. During the last three decades, the Institute has contributed substantially to the fields of technology development, compassionate medical care and academics.

The Institute is a member of the Association of Commonwealth Universities and the Association of Indian Universities. The Institute harnesses the academic and technological expertise of its multidisciplinary research faculty to conduct high quality, patient-focused translational research, which involves taking research from the laboratory to the bedside. The Institute's work culture is unique with each of its three wings working independently and at the same time interdependently, extending the benefits of scientific and technological advances to the poor and disadvantaged.

The Biomedical Technology Wing

The Biomedical Technology (BMT) Wing was set up with a mandate to develop technologies to meet the health care needs of India through research in biomedical technology. The materials research group has a proven record of research towards synthesis and characterization of biomedical polymers, and testing for biocompatibility to qualify the material for medical applications. The engineering and device development group has successfully developed and commercialized several products, which include blood bag, artificial heart valve, oxygenator, ventriculo-peritoneal shunt

and electromyography needle.

Major programs include development of materials for orthopedic and dental applications, cardiovascular device fabrication, drug delivery systems, nanomedicine, sensors and tissue engineering scaffolds. Biological research focuses on culture and differentiation of adult stem cells for regenerative medicine, in vitro tissue engineering, neuronal regeneration, development of bio therapeutics and diagnostic reagents and tissue response to materials at the cellular and molecular level.

The Hospital Wing

Started as a small medical centre, the hospital with 240 beds is currently recognized both in India and abroad as a leading centre for the treatment of cardio-vascular and neurological disorders. All the departments and divisions of the hospital have kept up with the advances in their respective fields and have also initiated several innovative programs for the first time in the country. Many new areas of treatment such as comprehensive care for epilepsy, comprehensive care for movement disorders, stroke care, paediatric and adult cardiac surgery, advanced interventional procedures in radiology and advanced neurosurgical care are offered at the Institute hospital.

The hospital is supported by laboratory facilities provided by Departments of Biochemistry, Microbiology and Pathology. Its research departments include the Division of Cellular and Molecular Cardiology.

The Public Health Wing: The Achutha Menon Centre for Health Science Studies

The Achutha Menon Centre for Health Science Studies (AMCHSS) started when public health education was not given serious consideration at the national or state level health planning and policy making in India. Interdisciplinary research and training in Public Health were lacking. Recognizing this need, the Institute decided in the early 1990s to set up a centre to address the issues of quality training and research in public health. In 1997, a school of public health, the AMCHSS was set up for research, training and consultation in public health and the country's first masters' program in public health was started. The centre also conducts several short courses in subjects which have growing significance on healthcare, such as research and professional ethics, gender mainstreaming, sexual and reproductive health, economic aspects of health and health care, and health management in addition to doing research and providing consultancy services to national and international agencies. Within a decade, this model received wide national acceptance and set the trend for public health education in the country.

As a part of its mandate for training, AMCHSS conducts two-year Master of Public Health (MPH) program, one-year Diploma in Public Health (DPH) program (exclusively meant for medical officers from government services) and PhD in Public Health, in

addition to short courses in Ethics, Gender, Reproduction, Child Health and Research Methodology. PhD Programs are offered in Public Health with a wide variety of areas of specialisation including Epidemiology, Health Economics, Health Policy, Health Systems Research, and Gender Issues in Health.

The MPH programs at the Indian Council for Medical Research's (ICMR) School of Public Health, Chennai, Christian Medical College, Vellore, Tamil Nadu and Indian Institute of Public Health, New Delhi under the Public Health Foundation of India are modelled on the one that was developed at AMCHSS, and are affiliated to SCTIMST. The Institute has undertaken major research programs in Epidemiology, Health Economics, Tobacco Cessation, and Gender issues in Health, many of them with international collaboration. The AMCHSS has also extended consultancy services to Ministry of Health and Family Welfare, Government of India, World Health Organization (WHO), World Bank, UNICEF and other national and international agencies. All AMCHSS courses have attracted students not only from India, but also from South Asian and South African countries. The AMCHSS also helped in setting up schools of public health in Nepal, Myanmar and South Africa. AMCHSS has thus proved to be a leader and trendsetter in the field of public health education, research and training in India.

2. THE PH.D PROGRAMME IN PUBLIC HEALTH

The AMCHSS offers both full-time and part-time PhDs in Public Health.

Areas of specialization:

Though the Ph D degree is offered in Public Health, the Ph D program offers specialization within Public Health. Scholars can pick a theme of their choice depending on the expertise and interest of the supervising faculty member. Broad areas of research currently being pursued by faculty at AMCHSS

- Epidemiology
- Gender Issues in Health
- Health Management
- Health Policy
- Health Systems

These areas may change as new faculty members are recruited, or old ones retire.

Admissions

The selection for PhD (full time) will be carried out twice in a calendar year, one for the January session and the other for the July session. PhD (part-time) will be offered only in the January session.

January session

The announcement will be made in the Institute website (<http://www.sctimst.ac.in>) and in leading newspapers in the month of September. The selection of Research Fellows will be based on performance in a written test and interview held in the first week of November. There are two Institute Fellowships in Public Health, which will be offered to top ranking candidates taking the test in November. These will be offered only to candidates planning to pursue full time Ph D at the Achutha Menon Centre and not to part-time PhD candidates or candidates from off-campus Ph.D programmes.

Candidates for the January session, who clear the test and interview in November, are expected to complete the registration process by June 30th of the succeeding year.

Written test for Ph D admission will be held only in November.

July session

The July session is open only for Fellowship holders. The announcement will be made on the Institute's website only (<http://www.sctimst.ac.in>) soon after publication of NET results. The notification will be made based on the availability of seats and availability of research guides at this Institute.

Individual Junior Research Fellowship holders (UGC, CSIR, ICMR, DBT) will be selected on the basis of interview. They do not have to write the entrance test.

Selected candidates for the July session are expected to complete the registration process by December 31st of the same year.

Entrance test

The entrance test and interview for Ph D is to be considered only as an 'eligibility' test, not as a selection. The candidate will have to identify a supervisor (guide) who will agree to work with him/ her on the topic of his/ her choice, and register as a Ph D scholar under the guide; only then the Ph D program will commence for each candidate.

Ph D fellowships may be available to pursue specific topics under the terms of some projects. Candidates desiring to be considered for these will have to clear the entrance test and interview of the Institute through the process laid out under the terms of the project, to be able to register.

Educational qualifications for admission to Ph D at AMCHSS

Post graduate degree in Modern Medicine, Public Health, Dentistry, Nursing, Veterinary Sciences, Demography, Economics, Sociology, Social Work, Political Science, Business Management (MBA), Public Administration, and Statistics. Other post

graduate degrees may be approved by the Academic Committee after examining the merits of the suggestion.

Minimum marks required: Consistently good academic record with 60% (GPA 6.5/10) marks in undergraduate and postgraduate examinations. In case of post graduate degrees in Modern Medicine where marks are not usually awarded, a pass in the first-attempt is needed at a minimum.

Two letters of reference are required to be enclosed along with the duly filled in application form for PhD admission.

Second year MPH students of the Institute can also apply for the PhD program. However, for the January session their admission will be subject to the outcome of their MPH result and obtaining the minimum percentage of marks before the time stipulated for admission.

The eligibility for part-time PhD at AMCHSS is the same as that of full-time PhD candidates. However, in addition to the two letters of reference required of all PhD applications, in case of employed part-time PhD candidates, a letter from the candidate's employer endorsing the candidate's application and committing to providing leave for completing the course requirements has to be furnished with the application form for (part-time) PhD admission.

Method of selection

The selection of research scholars will be based on the performance in written test and interview.

Those who have UGC/CSIR/ICMR/ DBT individual JRF need to appear only for the interview.

Candidates awarded INSPIRE fellowship, Senior Research Fellowships (SRF) and fellowship from state level tests (Eg. KSCSTE) have to qualify in the written test and interview.

The Institute reserves the right to short list candidates based on the number of seats available every year, academic merit and scientific records of the applicants, letters of reference, availability of research guide/s etc.

Candidates must provide a write up describing the research proposal (of about 1000 words) and a "Statement of Purpose for undertaking a research career" (300 to 500 words).

Age limit:

There is no age limit for PhD admission.

SCTIMST Fellowship/Contingency Grant:

Six Institute Fellowships are awarded each year, out of which two will be reserved for Health Science Studies (Public Health). The duration of fellowship will be for a period of five years or completion of the Ph.D program (i.e. final defence of the PhD Thesis), whichever is earlier.

The Institute fellowship grant for the PhD Institute fellows will be on par with DST for JRF/SRF including HRA and Contingency Grant. The same assessment criteria will be followed. No Fellowships are awarded to students enrolling for part-time Ph.D.

The unspent balance of contingency grant at the end of a year may be carried forward to the next year.

3. REGISTRATION FOR THE PhD PROGRAM IN PUBLIC HEALTH

Candidates who have qualified in the entrance examination for admission to PhD are encouraged to meet the recognized guides and decide to register with one of them based on area of interest and the available facilities. The list of research guides along with their areas of specialization is available in the Institute website. A topic of research that falls in line with the interests of the Institute may be submitted to the Division of Academic Affairs along with the "Acceptance Letter" of the research guide for the process of registration. This topic can be changed later on the recommendation of the DAC. The final title of the Ph D dissertation can be decided later in consultation with the Doctoral Advisory Committee. The title can be changed once with the approval of the academic committee.

(Format of the Registration form is available on the website)

Registration under recognized guides at National Institute of Epidemiology (NIE), Chennai and Christian Medical College (CMC), Vellore, Tamil Nadu and Indian Institute of Public Health (IIPH) Delhi: The Institute has entered into memoranda of understanding (MoU) with these premier institutions in India, whose MPH programs are affiliated to the Institute. There are recognized guides in these institutions for supervising Ph D in Public Health offered by SCTIMST. However, persons desirous of registering with them should note the following:

Candidates wanting to register with guides outside AMCHSS (in NIE, CMC and IIPH) will have to clear the written test and be found eligible through the interview conducted at SCTIMST as any other Ph D candidate of AMCHSS

The Institute fellowship will not be open to those wanting to register outside AMCHSS. These candidates should either be supported by some other source of funding-scholarships, project funding. Part time Ph D is not supported at centres other than AMCHSS at present.

Validity of the selection list

January Session: Valid up to 30th June of the particular calendar year.

June Session: Valid up to 31st December of the particular calendar year.

Validity lapses after the specified date. Candidates who do not register within the specified period of validity of the list will be required to apply again and go through the selection process as before.

Duration of the Program

For full-time PhD candidates

Minimum duration of the doctoral work shall be three years from the date of registration and maximum duration is five years for male scholars and six years for female scholars and persons with disability (more than 40% disability) with subsequent two extensions of six months each if requested by the student and recommended by the guide stating valid reasons (This includes the period of maternity leave also if availed). In case of any further request for extension (after 6/7 years both for male/female candidate) are made after the maximum period of registration, they will be allowed only under extraordinary circumstances for a maximum period of another six months (candidate is required to pay twice the annual tuition fee for these six months).

No fellowship will be provided for the period of extension beyond five years.

For part-time PhD candidates

The minimum duration for the part-time PhD program is three years and the maximum is seven years. The maximum period may be extended on request, by one year, subject to the discretion of the Academic Committee. For women candidates and persons with disability (more than 40% disability) the period of extension will be two years beyond the seven years. The minimum duration of time spent on the campus by the part-time PhD student should be six months over a period of three years over a single or multiple blocks. The student and guide will decide the duration of each block with the concurrence of the DAC.

The maximum duration for internal faculty members who register for PhD within the Institute is seven years. They should submit their thesis within this period and no further extension will be given to internal faculty members.

4. STRUCTURE OF THE PhD PROGRAM

i) Course work

Course work will be an integral part of the Ph.D. program.

Mandatory (Obligatory) courses will cover seven (7) credits. Students will be free to choose the rest of their courses for three (3) credits from those offered for MPH, or from other courses offered to PhD scholars, with the approval of the DAC, to make up the ten mandatory credits.

The DAC may recommend more than ten credits, if found necessary

The compulsory courses will cover Biostatistics, Epidemiology, Computers and Data Management, Research Methodology and Ethics. The courses offered at present are as follows (these may change from time to time, and will be notified):

Name of course	Credits
Essential biostatistics for health research	2
Introduction to epidemiology for health research	2
Database Management and use of computers for health research	1
Ethics in health research	1
*Quantitative methods for health research	1
*Qualitative methods for health research	1

*Students have to take one of these courses (depending on the area of research); the other one may be treated as optional.

The obligatory (mandatory) courses will be exclusive for Ph D scholars only, though some of the class-room sessions may be shared with the MPH classes. For the optional courses, Ph D scholars may be required to attend partly or wholly the lecture classes meant for the MPH program, as per the instructor's suggestion. In addition, the instructor may suggest further readings or discussion sessions. There are also a range

of optional courses specifically offered for Ph.D scholars. The list of such optional courses currently available and approved by the Academic Committee, are as follows:

- Analysing medical and health data using 'R'
- Data representation using graphs
- Methods seminar in epidemiology
- Advanced methods in qualitative data analysis
- Advanced course in approaches to qualitative research
- Measuring gender inequalities in health research
- Introduction to social determinants of health
- Introduction to sexual and reproductive health

The syllabus and course outline of all these courses are available with the respective course instructors, or the office of AMCHSS. Candidates pursuing Ph D at affiliated institutions should note the syllabus and course line and arrange for classes at their respective institutions.

There shall be separate exam for the Ph D scholars in these courses, and a separate transcript with letter grading will be submitted to the academic section. The exam schedule may be prepared by the instructor and intimated to the scholars well in advance, preferably in the beginning of the year. Exams will be conducted during the June and December breaks every year, and all scholars may be encouraged to complete the courses by the second year. Every scholar will only get two chances at clearing the mandatory course exams. Candidates who fail to clear the mandatory courses within two attempts will not be permitted to continue in the Ph.D program.

Candidates enrolled for Ph.D at NIE, CMC and IIPH may complete their course- work for mandatory and optional courses at their respective institutions. Examinations for the optional courses may also be taken in their respective institutions and their grades communicated to the Division of Academic Affairs, SCTIMST. However, the exams for the compulsory course modules will be conducted twice a year (June and December) in AMCHSS (as stated elsewhere), and candidates will have to appear for these exams in AMCHSS at the same time as Ph.D candidates of AMCHSS.

ii) Seminars:

All Ph D scholars of the Institute are expected to present six seminars related to the topic of research. Members of the DAC will mark the seminars separately. The schedule of the six seminars will be decided by the DAC. The student will gain 2 course credits on successful completion of the seminars.

Candidates enrolled for Ph.D at NIE, CMC and IIPH may present the six mandatory seminars in their respective departments.

iii) Evaluation of course work and seminars:

- Log book - Details of the courses attended, seminars presented and examinations passed will be recorded
- Course work- The student has to score a minimum of 'B MINUS' (equivalent to 2.5/5) for each module to qualify for the credits of that module.
- Seminars- the evaluation will be done by the DAC. (Format of the Evaluation form is published on the website)

A student may acquire a minimum of 12 credits (10 credits through courses & 2 credits through seminars) within the first 2 years of the Ph.D. program.

The Guide and Doctoral Advisory Committee may encourage the student to attend more courses as per the requirement of the specific research area.

iv) Half yearly reports:

The student should make a report of progress every 30th June and 31st December, which will be submitted to the Academic Division by the concerned research supervisor (guide) within a month (on or before the immediately following 31 July and 31 January respectively). The details of the courses completed and credits given by DAC members for seminars presented should be attached to these periodic reports. It will be compulsory for every research scholar to have a moodle account, and to upload the write-ups and power-points on this after every seminar.

v) Comprehensive examination:

The student shall take a comprehensive examination, which will include a written test and oral examination to assess his/her grasp of the subject and research methodology, not later than 24 months from the date of registration.

A panel of four external examiners for the comprehensive examination with contact details may be provided by the research supervisor to the Academic Division **before completion of one year** from the date of Ph.D registration by the student.

The student may make a request for the comprehensive examination not later than six months prior to the expected date of examination. After submitting the request in the prescribed form to the Academic Division, the supervisor may follow up with an email to the Dean or the Deputy Registrar, noting the date of submission of the request. The Academic Division may acknowledge such request. If the examination is delayed beyond 24 months from the date of registration, in spite of timely request from the student, it should not be deemed a fault of the student.

A minimum score of 60% is required to pass the written test before the oral examination

is conducted. A pass in comprehensive examination may entitle candidates who are recipients of Institute or UGC/CSIR fellowship to a Senior Research Fellowship.

In the event of failure in the comprehensive examination, a second attempt will be allowed within one year. There will be no third attempt.

Off-campus PhD candidates

Candidates enrolled for PhD at NIE, CMC and IIPH will have to take their comprehensive examination at their respective institutions. A panel of four examiners for the comprehensive examination of off-campus PhD candidates may be submitted to the Academic Division of SCTIMST before the end of one year from the PhD registration of the candidate. Approval from the Academic Committee for the panel of examiners should be obtained, prior to the conduct of the comprehensive examination. Responsibility for conducting the comprehensive examination of the candidate rests with the respective institutions. It is mandatory that an officially nominated faculty member from AMCHSS be present at the comprehensive examinations of PhD students from off-campus courses.

5. THESIS SUBMISSION

The thesis should reflect substantial work for the advancement of scientific knowledge, or design and development of research methods, or applied work of an innovative nature. It should show competence in critical analysis of scientific data as well as thorough familiarity with background literature. For guidelines on the format and structure of the PhD thesis, see [https://www.sctimst.ac.in/Academic%20and%20Research/Academic/Guidelines,%20Manuals,%20Forms/resources/Guidelines for PhD Thesis Preparation and Submission.pdf](https://www.sctimst.ac.in/Academic%20and%20Research/Academic/Guidelines,%20Manuals,%20Forms/resources/Guidelines%20for%20PhD%20Thesis%20Preparation%20and%20Submission.pdf)

Submission procedure:

1. **Colloquium:** Preparatory to final submission, there shall be a colloquium at which the student presents his/her work before the DAC, PhD Guide, PhD students and interested faculty from the Institute. Relevant suggestions may be incorporated into the thesis.

2. **Synopsis:** A synopsis of the thesis is then to be submitted prior to submission of the full thesis. Four copies of synopsis may be submitted. It is expected that the scholar will submit the full thesis no later than three months after submission of the synopsis. The synopsis of the work done will have to receive recommendation of the Doctoral Advisory Committee before submission to the Division of Academic Affairs. (The Application form is published on the Institute's website)

3. Published papers: A candidate is expected to have published a minimum of 2 papers (articles) in peer reviewed, indexed journals in the area of his/ her work, before submitting the thesis. The articles should either be published, or the scholar should produce an acceptance letter from the editor of the journal, before the viva-voce examination. These publications should arise from original work done by the scholar during the Ph D. Abstracts presented at conferences are not acceptable as original publication. In lieu of 2 publications, a single publication with the scholar as first author, which has appeared in a journal with an impact factor of 3 or above, can also be accepted.

Thesis should be prepared as per the “style manual” published in the Institute website.

4. Submission: Four soft-bound copies of thesis may be submitted to the Division of Academic Affairs – (The Application form for thesis evaluation is published on the Institute’s website). After evaluation, CD (Soft copy) of the final version of the thesis along with 6 (six) hardbound copies may be submitted to the Academic Section. (The Application form for submission of final thesis is published on the website)

Change of Title of Thesis:

Modification of the title of thesis may be effected on the recommendations of the research guide and the DAC members with the approval of the Director any time before the submission of synopsis.

Change of Research Area:

Change of research area is not allowed in normal circumstances. However, under exceptional circumstances only, it may be allowed with the approval of the Academic Committee.

6. THESIS EVALUATION PROCEDURE

Panel of examiners:

The guide, in consultation with the DAC members shall submit to the Division of Academic Affairs a panel of 5 external examiners, in the format published by the Division, within two years from the date of registration of the candidate. The title of the thesis should also be submitted with the list of examiners. If the title of the thesis was changed during the course of the Ph D work, the recommendation of the DAC and approval of the Director may also be submitted. (The format of the application is published on the Institute’s website)

Evaluation by external examiners:

To evaluate the thesis and submit the report, two external examiners will be selected

from the panel proposed by the Doctoral Advisory Committee or from the panel modified by the Academic Committee. The Guide/Guides will also be asked to submit a report on the thesis.

If both external examiners recommend rejection of the thesis, the thesis shall be rejected without any more review.

If one of the examiners recommends acceptance and the other recommends rejection, the thesis shall be sent to a third examiner. If the third examiner recommends acceptance, the viva-voce will be held. If the third examiner recommends rejection, the thesis will be rejected.

If a thesis is rejected, the candidate will be allowed to re-submit the thesis within one year, after addressing the issues raised by the examiners. The decision of the examiners on the resubmitted thesis will be final.

In case any of the examiners, including the research guide, is unable to make a definite recommendation, they should indicate one of the following alternatives:

a) Minor revision/clarifications not involving re-drafting of chapters of the thesis. This may be effected and the approval of the examiner may be obtained at the time of the viva voce.

b) Major revision involving rewriting of one or more chapters, but not involving additional research. In this case the thesis will be sent back to the examiner for approval, after revision by the scholar. The formal process of acceptance or rejection will follow.

The Evaluation Report submitted by the external examiners should highlight the salient features of the thesis and make a clear recommendation regarding its acceptance or rejection for Ph.D Degree. After receiving the evaluation reports on the thesis from the examiners, if the thesis has been approved or approved with some minor queries to be clarified during the viva, the candidate takes viva voce examination, on a date and time fixed and notified by the competent authority

Open defence and viva-voce

There shall be an open defence of the thesis in the presence of the examiners, the faculty and the students of the Institute. The viva-voce examination will follow the open defence.

It is closed (not open to anyone except the examiners and concerned officials) and is designed to assess the general scientific background of the candidate and his/her own particular contribution embodied in the thesis.

Off-campus PhD candidates

Viva-voce examinations for off-campus PhD candidates will be conducted in their

respective institutions. A panel of five examiners for evaluation of the PhD thesis of off-campus PhD candidates may be submitted to the Academic Division of SCTIMST before the end of two years from the PhD registration of the candidate. Approval from the Academic Committee should be obtained for this panel of examiners. The Ph.D thesis should be submitted to the Academic Division of SCTIMST, and the Division will be responsible for sending the written thesis to external examiners. Responsibility for conducting the Viva-voce of the candidate rests with the respective institutions. It is mandatory that an officially nominated faculty member of AMCHSS who is also a PhD guide be present at the open defence and Viva-voce examinations of off-campus PhD candidates.

During the viva voce, the examiners will ask questions related to methodology, literature review, and relevance of the research question, the findings, analysis, or discussion. If they are satisfied with the work of the scholar as well as performance during the viva, the thesis may be accepted as such, or minor modifications may be suggested. In case any minor modification is suggested, the thesis has to be modified accordingly and resubmitted within 2 weeks. Two hardbound copies need to be submitted to the Division of Academic Affairs within two weeks after the final viva voce examination. The research guide and co-guide may also be given the corrected copies.

Final evaluation:

The final evaluation of the thesis will consist of:

(a) Evaluation of the submitted work by the two external examiners and the research guide/s, and

(b) Viva-voce of the candidate by one of the external examiners and the research guide/guides.

(c) Consolidated recommendation based on the reports of the two external examiners and the viva-voce. The members of the viva voce examination board shall forward to the Registrar/Deputy Registrar a consolidated recommendation consisting of the reports of the examiners who evaluated the thesis and the reports on the candidate's performance in the viva voce. No marks are allotted in the viva voce examination.

If a candidate fails in the Viva voce examination, he/she may be permitted to appear again between 3 to 12 months (second attempt). If he/she fails in the second attempt, he/she will not be permitted to continue with the PhD program.

7. ADMISSION AND EXAMINATION FEES

These will be fixed from time to time by the Institute administration and will be announced in the website

8. GUIDELINES FOR DEREGISTERING A REGULAR AND PART-TIME PHD SCHOLAR

A PhD candidate may be deregistered if:

- the candidate does not finish the course work successfully within the stipulated time (two and a half years from the date of registration for full-time PhD students and three and a half years from the date of registering for part-time Ph.D students)

OR

- s/he does not successfully complete the Comprehensive Examination within a maximum of two attempts

OR

- the candidate has not submitted the PhD thesis within the maximum stipulated time inclusive of the extension period (6 years for full time PhD and 7 ½ years for part-time PhD)

OR

- the candidate's progress of work is not found satisfactory by the Guide and DAC members, who furnish supporting documentation for making such an assessment

9. SPECIAL LEAVE FOR PHD CANDIDATES AND KEEPING THE REGISTRATION ALIVE

Any break during the programme after clearing the Comprehensive examination may be termed "special leave for PhD students and keeping registration alive"

- Such leave has to be recommended, with robust justification, by the guide through the DAC and has to be endorsed by the Dean and the Director
- During the period of absence, the student will not receive any fellowship from the institute.
- If leave is sanctioned, the student can be away for a maximum period of two years
- Upon return, the PhD thesis has to be submitted, after meeting all requirements, within five years from the date of registration, EXCLUDING the period of absence. These students will not be eligible for the one-year extension (two years for women candidates and persons with more than 40% disability) beyond five years that is granted to those without a break . Necessarily, it shall be the responsibility of the guide and the DAC to recommend such leave only after ascertaining that there will be no need for extension beyond five years.

10. CANDIDATES LEAVING THE ACADEMIC PROGRAM MIDWAY

All candidates selected for the PhD programme shall be required to give an undertaking/execute a bond to the effect that he/she would not leave the course midway other than as special leave as specified in paragraph 9 above and that if he/she leaves the course, he/she agrees to pay a penalty to the Institute. The sum to be paid as

penalty will be fixed by the Institute and revised from time to time.

Institute fellows who resign without completing the program shall return the whole amount of scholarship received by him/her till the time of resignation OR emoluments for 6 months, whichever is higher.

The norms of the funding agency will be applicable for those candidates supported by other Fellowships.

11. DESIGNATION OF THE DEGREE

The PhD degree awarded by the Institute is designated as Doctor of Philosophy of the Sree Chitra Tirunal Institute for Medical Sciences & Technology.

The certificate will carry the title of the thesis.

Transcript of the course work shall be given along with the Degree Certificate.

12. LEAVE RULES FOR PhD CANDIDATES

Apart from the holidays of the Institute, 20 days personal leave and 10 days medical leave per year is allowed.

Maternity Leave

Women candidates with less than two surviving children, doing a programme, are entitled to maternity leave with full fellowship/stipend plus HRA (if applicable) for a period up to 180 days once during entire course of their study. The Director shall sanction such leave. The total time allowed for completing the Ph.D programme shall not include the period of maternity leave. In other words, those availing 180 days of maternity leave will have an additional period of 180 days available to them to complete the PhD programme.

Leave to attend Conference/Seminars/Workshops

A Ph D scholar shall have leave to attend conferences/ seminars/ workshops for up to seven days per year. Train fare (A/C 3-tier) + Registration fee will be given only once in a year. Travel expenses will be granted only if a paper is presented at the conference. The application for National Conferences has to be forwarded through the DAC. (Refer to the Institute web site for guidelines to attend International Conferences).

In case the student does not present a paper, leave will be granted subject to the approval of DAC; and the expenses will be met either from contingency grant of Fellows or from project funds.

13. HOSTEL ACCOMMODATION

Hostel accommodation will be provided to the PhD students subject to availability.

If hostel accommodation is not given for Institute Fellows, HRA similar to DST/CSIR/ICMR will be paid.

14. ELIGIBILITY TO BE A PHD GUIDE

A faculty member of the institute or of any of the affiliated institutions offering off-campus MPH and PhD programmes is eligible to be a PhD guide if he/she

- has a minimum of five years of post-doctoral experience
- has published at least five papers in standard indexed journals (not review articles) as a first or corresponding author after obtaining the PhD/MD degree and the papers so published are not from the thesis
- has been the Principal Investigator of at least one major research project funded by external agencies, after receiving PhD/MD Degree in the concerned subject

A person may apply to become a PhD guide via the Dean's office, and must obtain the approval of the Academic Committee before he or she becomes an authorised research guide of the Institute.

15. GUIDELINES FOR AND OBLIGATION OF THE RESEARCH GUIDE

Each research guide may have a maximum of six PhD students registered under him/her. The Guide is expected to supervise the progress of the student at every stage of the program. He/She is expected to inculcate ethics in research. The other responsibilities include:

- Constitution of the DAC. The application form is published on the Institute's website.
- Conducting courses and seminars and the submission of the minutes of DAC meetings.
- Submission of syllabus and panel of examiners (4 names with contact details) with the approval of DAC within one year of the candidate's date of registration . The application form is published on the Institute's website.
- A panel of 5 external examiners may be submitted with the approval of DAC for Thesis Evaluation within two years of the candidate's date of registration . The application form is published on the Institute's website.
- PhD guides of SCTIMST should desist from taking in fresh students under their direct guidance three years before their superannuation and co-guide should take

over when the guide retires, in the case the student has not completed the research work.

A guide may be a co-guide for another candidate of an external university with the approval of the Academic Committee of the Institute provided the area of research of the external candidate is similar to the area of work of the faculty at this Institute. He/she may go through the formalities of the external University to be a co-guide on his/her own and the Institute will not take any liability, financial or otherwise.

16. CHANGE OF RESEARCH GUIDE

Change of research guide is not encouraged. In extraordinary cases, change of research guide may be permitted with the approval of the Academic Committee on the recommendation of the Head of the Department and The Director.

17. APPOINTMENT OF CO-GUIDE

A co-guide can be appointed for a scholar, if necessary, provided that he/she contributes substantially to the program. However, the appointment of co-guide cannot be a temporary arrangement or alternate to the guide when the guide is on leave.

18. CRITERIA FOR SELECTION OF DAC MEMBERS

There should be a minimum of two DAC members excluding the research guide. At least one of the DAC members should be a recognised Ph.D guide. The other member should have at least a Ph.D degree or an MD degree and should have experience and expertise in the research area of the candidate. A scholar without a Ph.D or an MD degree may be chosen as a DAC member if he/she has at least 10 years of experience as a faculty member in a recognised university or institution of higher learning and expertise in the research area of the candidate.

Role and responsibilities of the DAC members

- DAC members are required to be present to review the mandatory six seminar presentations of the Doctoral Candidate. The dates for the presentations should be decided in consultation with DAC members. DAC members will evaluate the candidate's performance at each of the seminars.
- DAC members may recommend any specific courses that the candidate should attend in order to enhance their skills for completing the work of the thesis.
- The guide in consultation with DAC members is required to submit a request for the conduct of the Comprehensive examination for the doctoral candidate on completion of the course work and the 6 seminars satisfactorily.

- DAC members should be present to evaluate the work of the candidate at the final colloquium where the candidate presents his/her work.
- DAC members will review the synopsis and recommend the same for submission. The recommendation of the DAC is mandatory for submission to the Division of Academic Affairs.
- DAC members should review any changes in title of the thesis should it become necessary before the submission of the synopsis. The Director should approve such recommendations before being accepted by the academic division.
- DAC members are required to be proactive in enhancing the quality of the thesis.

19. DEADLINES:

Milestones	Deadlines
Registration: Registration form, details of the research topic with the acceptance letter of the research guide must be submitted at the time of registration . Tuition fees are payable at the time of registration.	before 30 June for candidates admitted to the January session before 31 December for candidates admitted to the June session.
Formation of Doctoral Advisory Committee	Within one month from the date of Ph.D registration by the candidate
Submission of a Panel of four examiners for comprehensive examination	Within completion of 1 year from date of registration
Submission of request for comprehensive examination. The application form for conduct of comprehensive examination should be accompanied by the syllabus to set question paper for comprehensive examination	At least six months before the expected date of comprehensive examination. The comprehensive examination is to be conducted as soon as the student has completed his/her course work and six seminars satisfactorily.
Submission of a Panel of five examiners for thesis evaluation	Within completion of 2 years from date of registration
Presentation of Colloquium	After data analysis is completed and a rough draft is ready
Submission of synopsis: Four copies of the synopsis are to be submitted	When the thesis is almost ready for submission
Submission of thesis	On completion of the third year or any time before the end of 5th year from the date of registering. Within three months of submission of synopsis

20. QUALIFICATION FOR Ph D EXAMINERS

Educational:

- 1) Ph D/MD Degree from a recognized University
- 2) A recognized expert in the subject matter of research or in an area closely related to it.
- 3) Minimum five years post doctoral experience in conducting and guiding research.
- 4) Active involvement in research activities at least 3 years prior to the examination.

21. REGISTRATION OF INTERNAL CANDIDATES:

Members of the permanent faculty of SCTIMST can apply as internal candidates for Ph D.

Academic staff having MSc/ MTech/ MD/ MPH degree with first class and who have satisfactorily completed probation in the Institute can be considered eligible to apply.

Applications (prescribed format) could be considered along with the admission to the full time Ph D programme.

The applicant should write the Institute's Ph D Entrance examination and score a minimum of 60% or qualify in any of the national examinations. They will not be ranked with other open candidates.

The same committee interviewing the regular Ph D candidates will interview these applicants.

The recognized guide who accepts responsibility to guide any internal candidate should not exceed the existing ceiling of 6 students under his/ her research guideship.

It is expected that as in the case of regular Ph D registrations, the guide has the requisite qualifications to supervise the student in the proposed area of research.

The HOD has to certify and report at regular intervals during the Ph.D programme that the Ph.D work is not affecting the regular work for which the staff member was originally recruited to the Institute.

The staff member (student) shall use only original data gathered by him/ her.

22. CANDIDATES REGISTERED IN THE OFF-CAMPUS PH.D PROGRAMMES:CMC Vellore, NIE Chennai, and IIPH New Delhi

Candidates wishing to register for Ph D in Public Health under faculty members of the institutions that have affiliation with SCTIMST should do so under scholars in those

institutions who are recognized guides of SCTIMST. At present, for the Ph D in Public Health, the institutions with affiliation are Christian Medical College, Vellore, Tamil Nadu (CMC), National Institute of Epidemiology (ICMR), Chennai, and Indian Institute of Public Health (PHFI) Delhi.

Selection of candidates:

Scholars aspiring to register for Ph D in these institutions will have to go through the selection process for Ph D in SCTIMST. The written exams and interviews will be conducted in SCTIMST. At the time of interview, they can express their desire to register under guides in affiliating institutions. The rules of eligibility for appearing for the entrance examination in SCTIMST shall apply to these candidates. These candidates, who wish to register in the affiliated institutions, will not be considered for the fellowships offered by the Institute for Ph D scholars. They should either have cleared a national test with eligibility for fellowship (such as the UGC/ICMR JRF), or be attached to a funded project under the researcher under whom they wish to register.

The rules for registration, completion of the Ph D program, submission of thesis, evaluation and acceptance will be the same as for those registering in AMCHSS. The following qualifying conditions will apply:

Course-work: Course-work for the Ph D in Public Health can be completed at the respective institutions, as per the curriculum prescribed. Classes may be arranged by respective institutions. The examinations conducted by AMCHSS in June and December for the compulsory courses will have to be taken at AMCHSS and cleared by the candidates. When they wish to appear for the examination, they may write to the AMCHSS office, indicating their preference of time (June or December). The transcript for coursework will be issued by the Division of Academic Affairs of SCTIMST.

Seminars: Six seminars may be offered by the candidates at their respective institutions. These may be evaluated by members of the DAC of the candidate and the evaluation forms submitted to the Academic Division, SCTIMST. The forms will be available with the Academic Division, or may be downloaded from the website.

Comprehensive examination: Candidates enrolled for PhD at NIE, CMC and IIPH will have to take their comprehensive examination at their respective institutions. A panel of four examiners for the comprehensive examination of off-campus PhD candidates may be submitted to the Academic Division of SCTIMST before the end of one year from the PhD registration of the candidate. Approval from the Academic Committee for the panel of examiners should be obtained, prior to the conduct of the comprehensive examination. Responsibility for conducting the comprehensive examination of the candidate rests with the respective institutions. It is mandatory that an officially nominated faculty member from AMCHSS be present at the comprehensive

examinations of PhD students from off-campus courses.

Viva-voce: Viva-voce examinations for off-campus PhD candidates will be conducted in their respective institutions. A panel of five examiners for evaluation of the PhD thesis of off-campus PhD candidates may be submitted to the Academic Division of SCTIMST before the end of two years from the PhD registration of the candidate. Approval from the Academic Committee should be obtained for this panel of examiners. The Ph.D thesis should be submitted to the Academic Division of SCTIMST, and the Division will be responsible for sending the written thesis to external examiners. Responsibility for conducting the Viva-voce of the candidate rests with the respective institutions. It is mandatory that an officially nominated faculty member of AMCHSS who is also a PhD guide be present at the open defence and Viva-voce examinations of off-campus PhD candidates.