



Certificate Course on Postgraduate Research

Basic Information

- 1. Department:** Research Promotion & Facilitation Center
- 2. Course Coordinator:** Dr. Shreenika Weliange,
+94 112 695 300 ext. 106 (Ms. Malkanthi Fernando)

3. Learning Outcomes:

The overall objective of the course is to improve the quantity and quality of post-graduate research in the Universities and other higher education institutes in Sri Lanka by enhancing research skills, knowledge and attitudes of the research students.

- To identify the responsibilities of a research student at different levels of postgraduate research.
- To identify and carry out initial communications with a suitable supervisor.
- To identify the dynamics of the student-supervisor relationships.
- To get sensitized on effective use of library and search of information through different search engines
- To appreciate the importance of regulations, ethics and moral responsibilities in research
- To understand the process of obtaining ethical clearance
- To get an understanding of the study designs used in research
- To get an overview of clinical trials
- To be able to appreciate different data collecting methods that could be adopted.
- To appreciate the different data analysis methods including statistical methods that can be applied in research.
- To understand the process of applying effectively to grants
- To write a research/project proposal
- To develop skills in writing abstracts, research papers and theses
- To develop research presentation and communication skills
- To develop skills in publishing research findings
- To sensitize the need of researchers to be effectively engaged in new developments associated with research such as translational research and collaborative research.
- To understand the dynamics of establishing research collaborations



4. **Credit Hours:** 192
5. **Duration in Months:** 6 months
6. **Course Delivery:**

Each module will consist of 16 face to face teaching and 32 guided self-study hours. A Hybrid method of face to face teaching; followed by online learning activities would be carried out within the month.

7. **Entry Criteria:**

The applicant should possess an undergraduate degree from any recognized local or foreign university.

Priority will be given to those who are registered for a postgraduate research degree or those planning for a post-graduate research degree.

8. **Admission Process:**

The course committee will review the application forms and selections would be carried out by the committee. Priority will be given to those who are already registered for a postgraduate research degree or those planning for a post-graduate research degree confirmed by the potential supervisor.

9. **No. of Students per Batch:** minimum of 30 and a maximum of 50 students

10. **Teaching/ Learning Method(s):**

Face to face teaching

- Lectures, delivered by local and international research experts
- Workshops, conducted by local and international research experts
- Group work, facilitated by research experts with participants from same stages and different stages of research to share and learn
- Hard and soft copies of the lectures and AV materials would be provided to all the participants.

Tutor-guided study time

- Learning inputs delivered through an online platform as videos, webinars and slide presentations and pdf documents.
- Tutorials and case discussions developed through online forums for the students to engage at pre-scheduled times during the week.



- Students are expected to maintain regular online activity which will be monitored by the module coordinator.
- Discussion forums offered through a online platforms throughout the month
- Webinars conducted at scheduled time
- The online teaching-learning material for a particular module shall be uploaded onto the learning management system after the face to face teaching of the module and shall be available for access throughout the duration of that module.

11. Assessment Method(s):

There would be an assessment at the end of each module and the certificate would be awarded to those obtaining >50% for each module plus an attendance >80% for the course and for each module. The participants who do not fulfil the above criteria and / or wish to attend only selected module/s would receive a certificate of attendance for the specified module/s attended by them.

Assessments would be both formative and summative and would be specific for each module. The formative assessments would consist of group tasks, quizzes, etc, while the summative assessments would include research presentation and assignments.

The course will comprise of the following examinations

- Module Formative Assessments; would comprise of group tasks, quizzes.
- End of module Assessment; at end of each module. These will be summative assessments will contribute to the final cumulative score.

12. Resource Persons:

- The director, all the advisors and the coordinators of Research Promotion and Facilitation centre (RPFC), Faculty of Medicine, Colombo.
- Content experts from the academic staff members from the Departments of the Faculty of Medicine, Colombo.
- Retired research experts of the Faculty of Medicine, Colombo.
- Content experts from other Universities in Sri Lanka.
- International resource persons in the online platform and through Skype.

13. Tuition Fees: Rs. 30,000/-

14. Other Fees:

- Application fee Rs 1,000/-



Core course contents of Modules

1. Module 1- Preparing for higher degree research and ethics
 - Introduction to postgraduate research
 - Selecting a research area and planning a research project
 - Rules and regulations of Research and Higher Degrees Committees
 - Selection of supervisors
 - Managing supervisor – trainee relationships
 - Introduction to collaborative research
 - Library skills – introduction to literature search, Facilities available in the library for researchers
 - General skills – interpersonal relationships, teamwork, communication, Information Technology
 - Overview of ethics in research – human and animal
 - Application for ethical approval from a recognized Ethics committee

2. Module 2 - Research methods and Data Analysis
 - Introduction to research designs
 - Overview of epidemiological study designs
 - Introduction to laboratory studies
 - Overview of genetics research
 - Introduction to clinical trials
 - Overview of statistical analysis
 - Overview of statistics for assessing association and risks
 - Introduction to methods of qualitative data analysis

3. Module 3 – Writing research proposals and applying for funds
 - Writing a research proposal
 - Managing references
 - Reviewing research proposals
 - Applying for local and international grants and scholarships
 - Grant management: finances and reporting
 - Financial regulations in handling grants and scholarships

4. Module 4 – Publication of research and examinations
 - Introduction to scientific writing
 - Writing an abstract
 - Preparing for oral/ poster presentations
 - Writing original research articles and reviews
 - Selecting a Journal for publication
 - Authorship, copyright and plagiarism
 - Publication of a research article in a Journal
 - Critical review of a research article
 - Writing a research report /thesis
 - Preparing for post-graduate research examinations



Number of hours of Teaching

| Name of Module | Face-to-face teaching Hours | Tutor guided online study Hours | Self-study assignments & Projects | Assessment week Submission of assignments & marking/presentation of projects |
|---|-----------------------------|---------------------------------|-----------------------------------|--|
| Module1 Preparing for higher degree research and ethics | 16 | 32 | 2weeks | 1week |
| Module2 Research methods and Data Analysis | 16 | 32 | 2weeks | 1week |
| Module3 Writing research proposals and applying for funds | 16 | 32 | 2weeks | 1week |
| Module4 Publication of research and examinations | 16 | 32 | 2weeks | 1week |