



Office of the Sub-Project Manager HEAT Project (SP 13691)

Department of Gynecology, Obstetrics and Reproductive Health
Gazipur Agricultural University, Gazipur 1706, Bangladesh



25 September 2025

Circular for Graduate Scholarships under the HEAT Sub-Project (SP 13691)

1. Graduate Scholarships Available

Graduate scholarships are available under the following HEAT Sub-Project (SP 13691) of Gazipur Agricultural University:

“Development of an On-site Molecular Diagnostic Kit and Probiotic-based Therapeutic Product for Sustainable Management of Bovine Mastitis”

This project is funded by the Government of Bangladesh (GoB) and the World Bank through the University Grants Commission (UGC) of Bangladesh. The project will recruit Four (04) PhD students and Four (04) MS students.

2. Research Areas

The core research areas encompass mastitis pathogenesis, microbial genomics and metagenomics, molecular diagnostic innovation, probiotic characterization and formulation development, bioinformatics-based host–pathogen interaction analysis, and translational biotechnology aimed at sustainable udder health management targeting to fulfill the following objectives—

- i. To develop and validate a rapid and accurate diagnostic kit for on-site detection of bovine mastitis using genome-specific markers and CRISPR-Cas12a-based technology;
- ii. To elucidate the functional pathways of probiotics against mastitis pathogens through milk leukocyte transcriptomic and metabolomic profiling; and
- iii. To formulate a targeted, effective probiotic-based therapeutic product for the sustainable management of bovine mastitis.

3. Details of Positions

3.1 PhD Positions (Total: 4; PhD in Theriogenology)

Eligibility: MS degree in Veterinary Sciences, preferably MS in Theriogenology/Veterinary Microbiology/Microbiology/Bioinformatics or any equivalent degree, with a minimum CGPA of 3.50 (out of 4.0).

3.1.1 Preferred Qualifications (for PhD candidates)

- Experience with molecular biology techniques (e.g., microbial culture, probiotic characterization, formulation, in-vitro and in-vivo antimicrobial studies, PCR/qPCR, CRISPR-based assays).
- Skills in microbial genomics, metagenomics, and bioinformatics, with ability to integrate wet-lab and computational analyses- will be given priority.
- Proficiency in computational methods and scripting languages (e.g., R, Python, Perl) for large-scale data analysis- will be given priority.

- Strong track record of scientific writing, with at least one peer-reviewed publication as first author.
- Ability to work independently and collaboratively in a research team.
- Excellent communication skills in English (oral and written).

3.2 MS Position (Total: 4; MS in Theriogenology)

Eligibility: Doctor of Veterinary Medicine (DVM)/BSc in Veterinary Science and Animal Husbandry/ any equivalent degree (Veterinary Science) from any reputed Agricultural University, with a minimum CGPA of 3.25 (out of 4.0).

3.2.1 Preferred Qualifications (for MS candidates)

- Experience in clinical examination, milk sample collection, and basic laboratory techniques (e.g., culture, staining, antibiogram profiling, PCR) - will be given priority.
- Interest in mastitis research, molecular diagnostics, and probiotic therapy for improving udder health.
- Proficiency in computational methods and scripting languages (e.g., R, Python, Perl) for large-scale data analysis- will be given priority.
- Good command of English (reading, writing, and speaking) for academic writing and communication.
- Strong motivation for laboratory and field-based research, with the ability to work independently and in teams.

4. Terms of Reference (ToR)

4.1 Admission Requirement

Selected candidates must enroll in the respective department of GAU in Autumn 2025 Term (Starting at November 2025).

4.2 Duration of Scholarship

- PhD: 36 months
- MS: 12 months

4.3 Scholarship Amount:

- **PhD students:** BDT 50,000/month
- **MS students:** Negotiable

✓ Documents Required: Copies of the following documents--

- ✓ Forwarding letter with a passport size photograph
- ✓ Curriculum Vitae (CV)
- ✓ Letter of motivation
- ✓ DVM/Bachelor certificate
- ✓ MS certificate (for PhD)
- ✓ National Identity Card (NID)/Passport
- ✓ First page of publication(s) (if any)

5. Application Submission

Applications must be submitted by 15 October 2025 during office time to the undersigned


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