

## TEACHING LEARNING PRACTICES

Post graduates of Microbiology are expected to work at various academic, researches, developmental and service institutions at national and international level. Indeed they need intensive practical exposure in their concerned fields. Therefore Microbiology Program at National College has modified the teaching learning practice as follows:

### B.Sc. PROGRAM (4-Years)

#### Regular Classes

At least 18 theory classes (1 hour each) and 6 practical classes (3 hour each)/week

#### Guest Lectures

Few guest lectures from expertise of concerned fields of Microbiology are organized.

#### Group Project Work

Project work is assigned to each student every year to develop individual research skills. Group research project is compulsory for each student in fourth year.

#### Field Visits

Students in their first and second year visit different laboratories and industries relevant to their syllabus.

### M.Sc. PROGRAM (2-Years; 4 Semesters)

#### Regular Classes

At least 18 theory classes (1 hour each) and 6 practical classes (4 hours each)/week.

#### Guest Lectures

Few guest lectures from expertise of concerned fields of Microbiology are organized.

#### Journal Club (JC)

JC is compulsory for all students.

#### Seminar

At least one seminar is compulsory for each student. However students have ample opportunities to present their research as well as literature materials in seminar, journal clubs and conferences.

#### Group Project Work

Group research project is compulsory for each student in each semester. Professional Development Class Series

focuses on research and presentation skill development.

#### Field Visits

Students in their fourth semester visit different laboratories and industries relevant to their syllabus.

#### Short Term Training

A training program on Research Methodology is provided for research students.

#### Internship

All students complete internship at assigned Hospitals/Research Laboratories (Medical Microbiology), Food Industries (Food & Industrial Microbiology) at the end of internship students shall submit the report of internship.

#### Dissertation

Dissertation is compulsory for all students.

## LAST BUT NOT THE LEAST

We always welcome you as a member of our NIST family. We will be acting like a guide during the academic programs providing personal counseling so that you could reap the best out of you even after the completion of the programs. We would like to act as a trustee of society enlightening the knowledge bestowed with virtue and spreading a spectrum of wisdom over the mother earth.

## ACADEMICIANS AND FACULTIES INVOLVED IN NATIONAL COLLEGE

Dr. Madhav P. Baral  
Prof. Dr. Tika Bdr. Karki  
Prof. Dr. Bharat Mani Pokhrel  
Prof. Bharat Jha  
Prof. Dr. Dilip Subba  
Prof. Dr. Sarbajna Man Tuladhar  
Dr. Niranjana Parajuli  
Dr. Bishnu Marasini  
Dr. Ekaraj Paudel  
Dr. Pramod Poudel  
Dr. Trinetra Man Pradhananga  
Dr. Kishor Pandey  
Dr. Trishna Manandhar

Dr. Prakash Gyawali  
Dr. Poornima Manandhar  
Ms. Pranita Sharma Baral  
Mr. Om Prakash Pant  
Mr. Santosh Khanal  
Mr. Anish Rai  
Ms. Reena Pal  
Mr. Shiva Kumar Khatri  
Mr. Prakash Kafle  
Ms. Anu Shrestha  
Ms. Basudha Shrestha  
Mr. Dipendra Shrestha  
Ms. Gita Timsina

Mr. Manish Thapaliya  
Mr. Tankeshwor Acharya  
Ms. Nanuma Zobegow  
Mr. Santa Kumar Humagani  
Mrs. Minarva Shrestha  
Mr. Nabaraj Heka  
Mr. Sudeep K.C.  
Mr. Krishna Pd. Dahal  
Ms. Sushila Maharjan  
Ms. Srijana Khanal  
Mr. Sunil Lekhak  
Mr. Dilip Poudel

## SELECTED NATIONAL COLLEGE GRADUATES: GLOBAL SCENARIO



Dr. Pramod Poudel  
PhD in Biotechnology  
MEXT scholar, Japan



Mr. Vijay Singh Chhetri  
PhD Scholar, Louisiana  
State University, USA



Mrs. Supriya Sharma  
Lecturer, Central Dept.  
of Microbiology, TU



Mr. Rajdeep Bormjan  
PhD Scholar, Purdue  
University, USA



Dr. Sardulendra Pd. Sherchan  
Purdue University,  
USA



Mr. Om Prakash Sah  
PhD Scholar, Teesside  
University, UK



Mr. Rajiv Dhital  
PhD Scholar, Southern  
Illinois University, USA



Mrs. Shanti Pandey  
PhD scholar, University  
of South Mississippi, USA



Mr. Pashupati Bhandari  
Country Manager  
Tulip diagnostics Pvt. Ltd. India



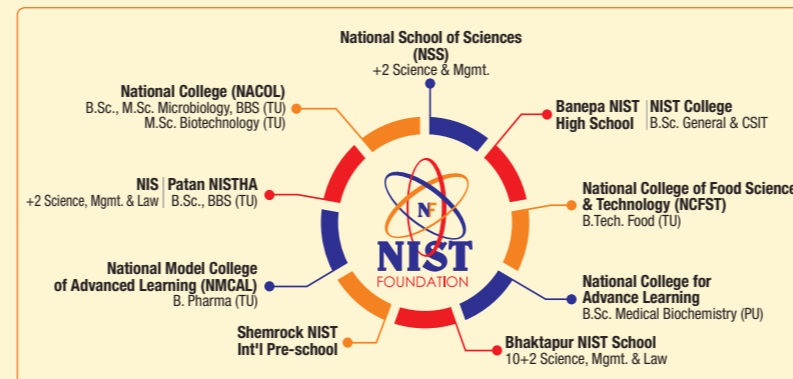
Mr. Santosh Khanal  
Academician, NIST



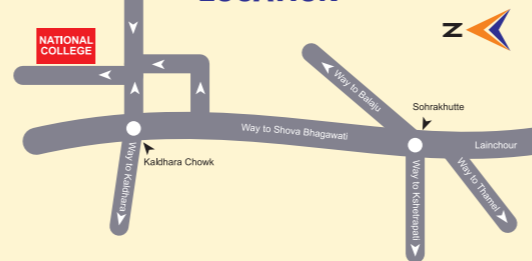
Mr. Om Prakash Pant  
Academician, NIST



Mr. Bidur Acharya  
Resercher, Patan Academy of  
Health Sciences



## LOCATION



Campus Chief & President, NIST foundation  
**Dr. Madhav Pd. Baral**

Head of Department  
**Dr. Pramod Poudel**



## NATIONAL COLLEGE (NACOL)

NIST Higher Education Complex,  
Khusibu, Naya Bazaar, Kathmandu  
Phone No. 016224343, 01-4360096, 01-4360367  
Email: nacolnist@nist.edu.np  
Website: www.nist.edu.np



## B. Sc. & M. Sc. PROGRAMS IN MICROBIOLOGY

AFFILIATED TO TRIBHUVAN UNIVERSITY



## NATIONAL COLLEGE (NACOL)

NIST Higher Education Complex, Khusibu, Naya Bazaar, Kathmandu



Guest Professor from USA  
Visiting NIST  
Professor from USA

## NATIONAL COLLEGE AT A GLANCE

In the short run National College has already achieved prominence as one of Nepal's most innovative and enterprising educational institutions in the field of Bachelors' and Masters' degree level studies in Microbiology. We strive to establish it as one of the apex educational institutions of Nepal.

National College was established in 1998 AD with an objective to pursue excellence in higher education in Science and Technology. After seven years' exciting experience of running B.Sc. Microbiology, the college, with the encouraging feedback from the students, guardians and experts of the concerned field, started M. Sc. Microbiology program in 2005 AD under the affiliation of Tribhuvan University with major in Medical & Food Microbiology.

## OBJECTIVES

- To provide excellent education and knowledge with research skills
- To provide quality education in Microbiology and applied sciences with strong base in its fundamental principles
- To make the students capable of identifying and solving the problems of contemporary society
- To enable students in understanding wonderful world of Microbiology
- To develop students' competence to work in different academic, research and service laboratories of educational institutes, hospitals, industries, etc.

## STRATEGIES

- Screening the students through entrance tests mechanism run by the college to enroll students who are emotionally and intellectually sound.
- Continuous academic evaluation and follow - up to bring the students in track in case of deviation.
- Guidance by well qualified and experienced faculty members having national and international exposures.
- Maintaining academic discipline of the students to make them feel responsible towards the studies.
- Practical orientation in teaching/learning methodology, participative, interactive approach and group exercise.
- Organizing guest lectures, field visit, short term research work and project works.
- Complete avoidance of political activities to make the institution purely academic.
- Providing academic counseling and guidance to the students for their further career prospects by faculties and experts.
- Providing required professional development classes and training to the students

**SCHOLARSHIPS:** Based on the merit list, students will be provided with various scholarships and awards. Class topper in the final board examination will also be given scholarship. Students passing out from NIST foundation will get the attractive scholarship/award during admission.

**INFRASTRUCTURE:** The laboratories are equipped with PCR, Real-time PCR, ELISA Reader, 96-well Plate Reader, UV Visible Spectrophotometer, High Speed Refrigerated Centrifuge, Autoclave, Freezer (-20°C), pH meter, Micropipettes, Incubators, Laminar flow, Electronic Balance, Microscopes, Heating Block, Centrifuges, Hot plates with stirrer, Rocking Platform, electrophoresis apparatus (for DNA & Protein), Test tube Rotator, Water Bath Shakers etc. In addition, college is well equipped with air conditioned tissue culture laboratory, library, seminar room and a computer laboratory with internet facility.

**EDUCATIONAL TOUR:** Field trips to different sites are organized to support theoretical teaching. There are programs related to the biological excursion, participation in exhibitions, field and industry visits etc.

**PUBLICATIONS:** In order to disseminate current scientific events, college has regularly published a magazine, research papers and journals respectively. These magazines are true platform to exhibit the creativity of the students and teachers.

## MICROBIOLOGY CAREER PROSPECTS

The development of Microbiology as a distinct and specialized discipline deserves its importance in understanding the role of microorganisms in infectious diseases (of human, plants and animals) spoilage of food material, maintenance of soil fertility and in the dairy and brewing industries.

Microbiology post graduates can find their prosperous career in various academic, research and service institutions in both public and private sector. Microbiologists have open arena of future prospects within the country and abroad. Many of our graduates are pursuing their higher studies in United States and various other countries.

NACOL will build on all recent activities and advances in Microbiology and will focus on filling existing knowledge gaps. As described, significant work must be done to build a more robust scientific foundation to support widespread application of Microbiology.

## DESTINATIONS OF MICROBIOLOGISTS

Microbiology-related careers are found in a diverse range of employment sectors:

- Hospitals and Healthcare organizations
- Environmental organizations [Governmental, NGOs, INGOs]
- Industry-food and drink, pharmaceuticals, water and biotechnological companies
- Forensic science laboratories
- Higher education institutions
- Academic Advancements in diverse fields

## ELIGIBILITY FOR ADMISSION

**B.Sc. MICROBIOLOGY PROGRAM:** The candidates who have passed 10+2 (Science) or equivalent examination at least in a good second division are eligible to apply.

**M.Sc. MICROBIOLOGY PROGRAM:** The candidates who have passed B.Sc. Degree with major in Microbiology, Biochemistry and BMLT from Tribhuvan University or Equivalent Degree from Tribhuvan University or any other university recognized by Tribhuvan University are considered eligible to apply and can study masters in Medical Microbiology, Food & Industrial Microbiology.

## ADMISSION CRITERIA

Application forms can be obtained from the admission office of National College, Khusibu, Nayabazar, Kathmandu. All applicants should submit the complete application forms as per the details mentioned there on. All the applicants should appear the entrance examination conducted by Tribhuvan University

## RESPONSIBILITIES OF STUDENTS

Students will be governed by the code of conduct as published by the college. No students are allowed to involve in any sort of political activities or have any political affiliation. Students overruling the basic norms and values of the institution are liable to be expelled from the college. Students must follow the academic calendar, which will be the chronological academic guidance for the classes pertaining to an academic year.

