

College of Natural Resources Prospectus 2025



INTRODUCTION TO THE COLLEGE OF NATURAL RESOURCES

The College of Natural Resources was established in 1992 by the then Ministry of Agriculture and Forests (MoAF) to train Extension Agents. The concept of training was based on the Bhutanese farming system in which crops, livestock and forests are integral parts of the rural livelihood system.

Towards late 1980s, the MoAF reviewed the policy of Renewable Natural Resources (RNR) sector development, and one very important outcome of the review was the integration of training programmes of the different departments under the MoAF.

The National Agriculture Training Institute at Paro, the Royal Veterinary Institute at Serbithang and the Bhutan Forestry Institute at Taba were brought under one umbrella and the then Natural Resources Training Institute (now known as the College of Natural Resources) was established at Lobesa with funding support from the Swiss Development Corporation (SDC), Helvetas and the Royal Government of Bhutan.

With the launching of the Royal University of Bhutan (RUB) in the year 2003, the then NRTI was inducted as a member college of the university in the year 2004. It was renamed as the College of Natural Resources and started offering degree programmes.

Vision

The College of Natural Resources will strive to be a dynamic and internationally recognized centre of learning that promotes GNH and sustainable development through leadership in education, research and professional services in Agriculture, Natural Resources Management and Rural Development.

Mission

- Offer relevant broad-based higher education in Agriculture, Natural Resources Management, Food, Climate, conservation and Rural Development.
- Serve as a resource centre for high quality professional and advisory services in the area of Agriculture, Natural Resources Management, Climate and Rural Development.
- Generate and transfer knowledge through research in Agriculture, Natural Resources Management and Rural Development.
- Promote academic culture infused with GNH values for intellectual and personal development.

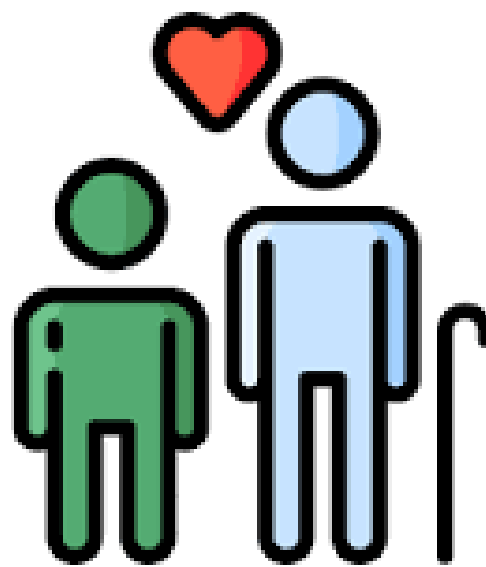
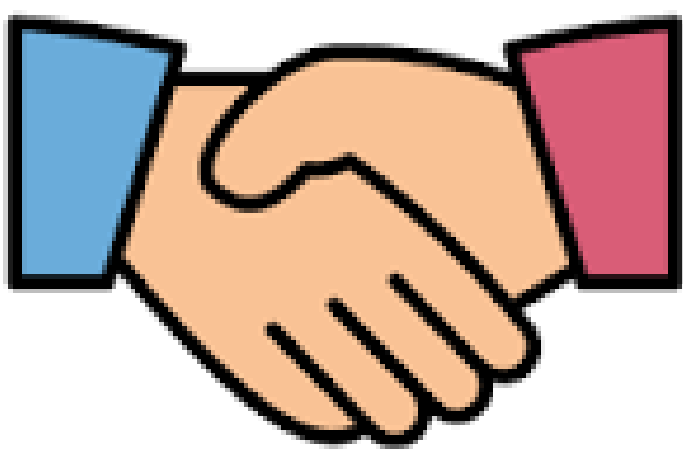
CORE VALUES

*Respect for people and the environment.

*A love for learning that fosters Creativity and innovation.

*Professionalism with Accountability and Transparency.

*Teamwork and collaboration.



Message from the President

As we begin the Spring Semester of 2025, we are happy to present the College Prospectus 2025. Since its establishment in 1992, the college has continuously aspired to be a center of excellence in agriculture, food, climate, conservation, sustainable natural resource management, and sustainable development.

We remain committed to empowering graduates and researchers with the experience, skills, critical thinking, and problem-solving abilities essential for success in the 21st -century job market and beyond.

Over the years, we have expanded from offering simply diploma programs in agriculture, animal science, and forestry to six bachelor’s programs, three master’s programs, and one PhD program.

Additionally, we are in the process of developing one more bachelor’s program and two new master’s programs, which we aim to launch within the next two to three years.



Furthermore, we have established three research centers focusing on crucial areas of rural development, climate, and sustainable mountain agriculture. This Prospectus provides information about our academic programs, courses, and specializations.

Additionally, it highlights our key activities and achievements over the past year. As anticipated, 2024 was a dynamic and rewarding year, filled with numerous academic, research, extracurricular, and networking activities, as well as visits from several regional and international students and delegates.

As we step into 2025, we carry forward the lessons learned, the milestones achieved, and the ambitions that drive us. This new year brings fresh opportunities to push boundaries, embrace emerging challenges, and continue our pursuit of excellence.

We remain committed to our mission, support one another, and strive towards a future that balances development with sustainability.

Wishing everyone a year filled with purpose, progress, and prosperity!

Sonam Wangchuk
President



GROW YOUR FUTURE IN THE COLLEGE OF NATURAL RESOURCES

Why Study in CNR?

The College of Natural Resources has long experience in offering higher education and tailor-made courses in Agriculture, Animal Husbandry, and Forestry. The faculty members are well qualified in their fields of expertise and have developed years of experiences in imparting quality education and research. Most of the academic staff have been trained abroad and have research experiences which can enrich learning experiences of students.



Campus

The campus is spread over 100 acres on a hill slope overlooking the beautiful valley of Punatsangchhu among lush green subtropical Chir pine forest. It is located at about 65 km east of the capital city of Thimphu along the east-west highway. Mestina, a growing satellite town, which is located at the tri-junction of Thimphu, Punakha, and Wangdue highway, is within a walking distance. Other nearest towns are Bajo in Wangdue and Khuruthang in Punakha, which can be reached by taxi in less than half an hour.



POSTGRADUATE PROGRAMMES

The college offers three master programmes and one doctoral degree

PhD in Climate Studies (3 year; research-based)

The Doctor of Philosophy (PhD) in Climate Studies aims to develop professionals who would contribute to sustainable development by addressing the various impacts of climate change. The programme is intended to enhance the knowledge and skills of the students with specialist competencies in a wide range of subject areas pertaining to understanding climate change and its impact on agriculture, animal production, environment, energy, water, disasters, transport and industries, including human health.

The programme prepares the students to pursue a wide range of careers such as researchers, academicians, development specialists, project and programme managers, planners, advisors, and decision makers.

Curriculum Structure: The three-year PhD programme comprises 360 credits spread over six semesters. Semester I has four foundational modules each with 15 credits. Credits will be provided based on the progress made by students. The PhD candidate will have to publish at least two peer-reviewed research articles in peer-reviewed journals, and present one conference and also produce a thesis. The thesis will have to be worth 50,000 to 100,000 words.



MSc in Natural Resource Management (2 year, research-based)

The main purpose of the MSc in Natural Resources Management programme is to contribute to the socio-economic development of the nation by increasing the critical mass of qualified citizens and building knowledge-based society.

The programme is intended to enhance the knowledge and skills of the mid-level professionals with specialized knowledge and competencies in a range of subject areas pertaining to rural development in general and agriculture, animal production and forestry in particular.

The programme provides opportunities for student to develop research capacity through the process of conducting research independently and develop research skills and critical thinking.

These professionals are expected to play a critical leadership role in the management of agriculture, livestock development, and forestry in the country. The programme is targeted towards mid-career agriculturist, foresters, and livestock development workers.

Curriculum Structure: The Master of Science in NRM is a research based programme. The programme consists of 240 credits spread over 4 semesters.



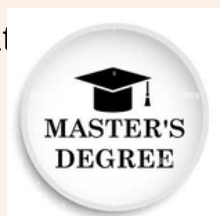
MSc in Conservation Biology (2 year)

The programme is intended to enhance the knowledge and skills of forestry, wildlife and environmental professionals with specialist knowledge and competencies in management and conservation of ecosystems and wildlife species.

The programme prepares the students in conducting research, developing skills, planning conservation programmes and making decisions in management and conservation of species.

The programme also helpstodevelop the capacity of the students in research skills through independent researchandcritical thinking by conducting problem-based research in the field of their interest orbasedon the needs of the organization who sponsored their study.

Curriculum Structure: Master of Science in Conservation Biology is a research-based programme consisting of research publication(s) and a Dissertation component. The programme is a 2-year full time programme compromising 240 credits. However, the credits are assigned only to the taught modules in Semester I of Year I with 15 credits each. The remainder one and half years will be devoted to conducting research, including collecting and analyzing data, writing and publication of papers, and writing Dissertation.



Master's in Development Practice (2 year)

The Global Master's in Development Practice (MDP) is an interdisciplinary two-year graduate degree programme providing current and aspiring development practitioners the skills and knowledge to better understand, develop and implement integrated approaches to sustainable development.

The launch of a Global MDP programme was the central recommendation of the International Commission on Education for Sustainable Development Practice (ICESDP), which discovered that there is a lack of comprehensive cross-disciplinary programme to train practitioners in the full range of challenges of sustainable development.

Curriculum Structure: The MDP is a two-year full-time programme which requires successfulcompletion of 60 credits each semester and a total of 240 credits to gain an award. Theprogramme comprises ten 15-credit modules, a field attachment of 30 creditsandadissertation of 60 credits.



UNDERGRADUATES PROGRAMMES

The college offers six undergraduate programmes

Bachelor of Science in Agriculture

The BSc in Agriculture programme aims to develop human resource in safe food, fibre and animal production in line with principles of organic farming. The programme takes an integrated approach to the design and operation of crop and livestock production systems that are socially responsible, environmentally sound and economically sustainable.

The programme is designed to train students in multiple aspects of agriculture and the associated processing and marketing chain.

Graduates of the programme will be equipped with the technical competencies, knowledge and skills required to address the challenges and requirement of farming. Thus the programme is expected to address the gap in the development of agriculture system.

Curriculum Structure: The BSc in Agriculture programme consists of 480 credits including field attachment and a research project equivalent to five modules in the final semester. The mode of study is full time for four years.

Bachelor of Science in Animal Science

The BSc in Animal Science program aims to build national capacity in sustainable livestock development, contributing to rural development and poverty reduction.

It focuses on cultivating professionals with applied science skills in animal health and production. Students gain integrated knowledge in livestock production and health management, enabling them to plan, design, and manage livestock farms for potential self-employment.

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The programme's overarching goal is to equip students to address livestock-related challenges through scientific research, contributing to food and nutrient security in the country and region.

Curriculum Structure: The four-year programme is designed with double exit and double entry possibilities. The first two years of the programme is skill-based, and prepares students to exit with a two year Diploma certificate. On completion of the first two years, those students capable of and wishing to pursue Bachelor programme will continue further for two more years and exit with Bachelor's degree.

Bachelor of Science in Environment and Climate Studies

BSc Environment and Climate Studies programme introduces students to a variety of fundamental subjects related to climate and environment focusing on the major elements of environment (land, water, air and living organisms).

The programme then advances towards developing the skills in assessing the health of the environment and impacts of climate changes on various aspects of environmental entities.

Overall, the programme equips students with the knowledge and skills needed to address pressing environment and climate challenges.

Curriculum Structure: The Bachelor of Science in Environment and Climate Studies is a four-year undergraduate degree programme. It is a multidisciplinary programme which emphasises on paying attention to human interaction with the earth system, and interrelationship between and among other sciences such as social sciences, forestry and agriculture.



ACADEMIC PROGRAMMES OFFERED BY THE COLLEGE OF NATURAL RESOURCES

Bachelor of Science in Forest Science

The BSc in Forest Science programme has made a significant contribution in the development of forestry resources in Bhutan, especially in the areas of forestry extension, forestry management, environmental protection and wildlife conservation.

The programme provides a wide range of theoretical and practical skills on forest administration, extension, research, conservation and protection, and production systems.

The current programme is the result of a successful development of the forestry programme for about 30 years, which was made possible through a series of improvement process that engage stakeholders.

Curriculum Structure: The four-year BSc programme comprises 480 credits, modules including field attachment and a research project in the final year. The mode of study is full time.

Bachelor of Science in Food Science and Technology

The main objectives of the programme are to train expertise relevant to the field of food science and technology which is currently lacking in Bhutan.

It focuses on improving food production technology, understanding the role of traditional food in preserving the cultural identity of a country. Additionally, it enhances the knowledge and skills of food production, processing, food analysis and food technology in production of safe food, while also developing professional packaging and labeling methods and creating new food products using interdisciplinary knowledge.

Curriculum Structure: The four-year BSc programme consists of 480 credits with 36 modules including field attachment and a research project in the 4th year. The mode of study will be full time. The programme is a nested Diploma programme with a possibility of students graduating with Diploma certificate after two years.

Bachelor of Science in Sustainable Development

The BSc in Sustainable Development aims to equip students with concepts and practices in socio-economic development and environmental protection.

Aligned with the country's philosophy of Gross National Happiness, the programme emphasizes a balanced approach to development. It fosters skills in project management, leadership, and research, while instilling transferable skills like problem-solving, collaboration, adaptability, leadership, time management, analytical skills, communication, and creativity.

The programme seeks to enhance students' ability to apply knowledge to address diverse development issues.

Curriculum Structure: The sustainable development is three-year programme and is introduced based on a wider understanding that the natural resources are used to the extent that it may be not be sustainable and may not be reversible if the past and the current trends are adopted.



BEYOND ACADEMICS

Games & Sports

Games and sports encourage physical well-being while fostering social interactions among students. The college offers a range of sports facilities, including:

- A full-size football field
- Basketball court
- Badminton court
- Volleyball court
- Archery/khuru field



HAPINESS AND WELL BEING CENTRE

It provides a wide range of services to the students based on five themes such as:

- Leadership of self
- Working with life challenges
- Mindfulness
- Awareness
- Emotional and social intelligence



BUSINESS INCUBATION CENTRE

In 2018, the College took a significant step towards fostering innovation and supporting entrepreneurial endeavors by establishing the Business Incubation Centre. This initiative aimed to provide a nurturing environment for students, faculty, and external entrepreneurs to incubate and develop their business ideas within the college's ecosystem.

FAB-LAB and BIO-FABLAB

In April 2022, a momentous occasion unfolded at the College with the inauguration of the Fab-Lab, which is poised to become a hub for innovation and hands-on learning. While the inauguration marked the official commencement, the full functionality of the Fab-Lab was realized only in October 2022 due to the time-consuming installation process.

The Fab-Lab has now opened its doors to students, ushering in a new era of practical education and experimentation. The primary objective of the Fab-Lab is to provide a space where students can explore the art and science of making things.

The facility is equipped with state-of-the-art machinery, tools, and resources that enable students to engage in hands-on activities, fostering creativity and problem-solving skills. From prototyping to fabrication, the Fab-Lab serves as a dynamic environment where students can bring their ideas to life and gain practical experience in various aspects of manufacturing and design.

A significant expansion to the Fab-Lab's capabilities occurred with the introduction of the Bio Fab-Lab in 2023. This specialized facility focuses on the intersection of biology and fabrication, emphasizing the cultivation and creation of living organisms.

Unlike traditional Fab-Labs that concentrate on material fabrication, the Bio Fab-Lab delves into the realm of bio fabrication, aiming to teach students how to grow everything from living organisms to sustainable materials.



DISTINGUISHED GUEST LECTURE SERIES

The College organizes a Guest Lecture Series featuring distinguished speakers from Bhutan and across the globe. These sessions provide an opportunity to:

- Engage with esteemed professionals from diverse fields.
- Explore a broad range of ideas and perspectives.
- Exchange thoughts and insights with influential individuals.



RESEARCH CENTRES

Centre for Environment and Climate Research

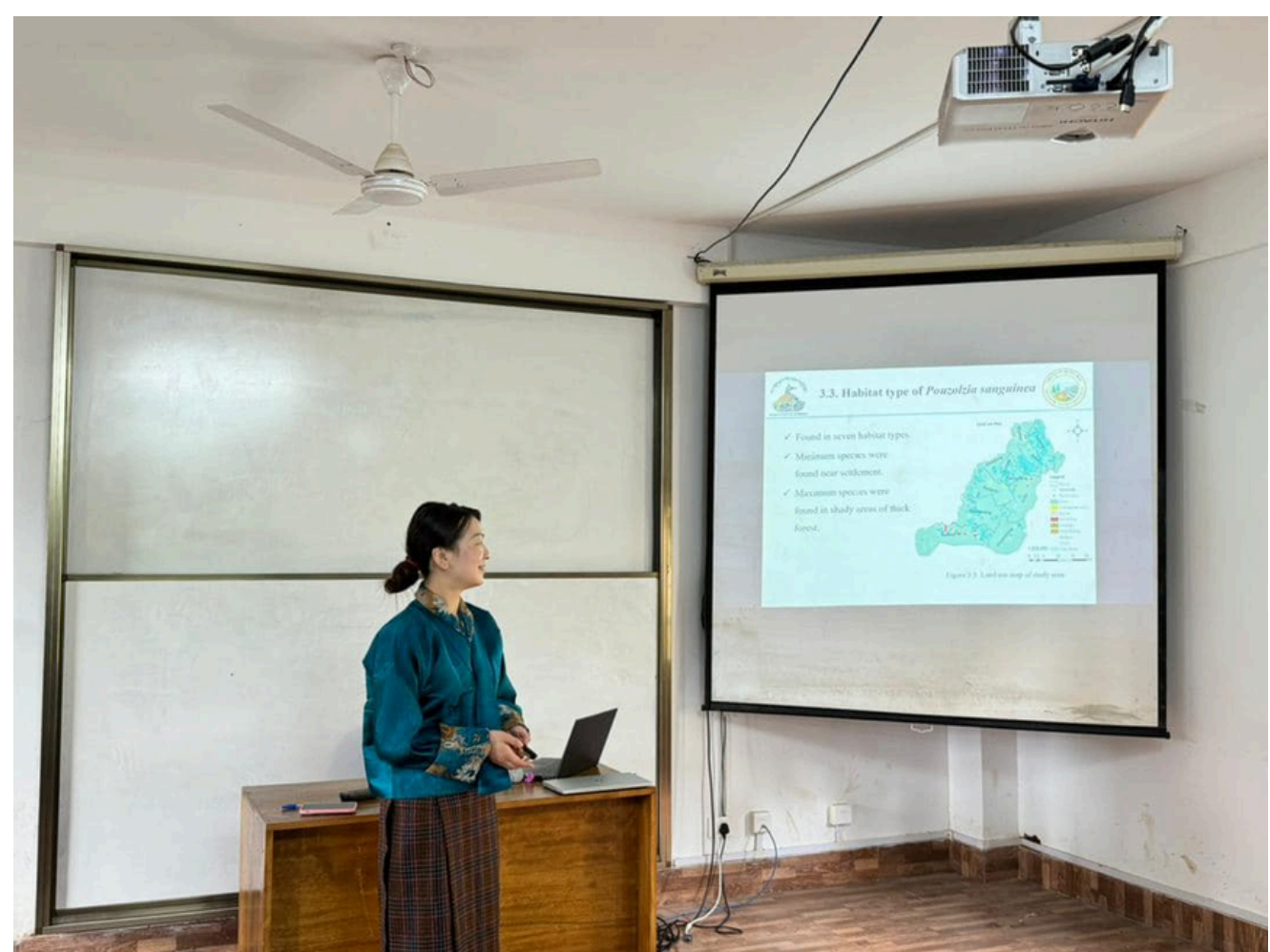
The College's Centre for Environment and Climate Research focuses on environmental conservation, climate change adaptation, mitigation and resilient livelihood, food, water and land resources nexus, sustainable development, and Spatial information on biophysical, climate and human interactions. The environment in this context includes air, water, earth, forest, species, and biodiversity among others.

Centre for Rural Development Studies

The College's Centre for Rural Development Studies which was launched in 2010 aims to provide a decentralized and flexible training avenue for mid-level professionals, novice practitioners, farmers, and youths, among others. It offers trainings and conducts research in wildlife conservation, climate change, ecotourism, identification of plants and animal, and use of Statistical and GIS tools for research. Recently, the Research Centre has expanded its wing in providing consultancy services, short-term trainings, and entrepreneurship programme. It has an Entrepreneurship Incubation Cell where potential entrepreneurs go through a process of developing and testing a successful farm business.

Centre for Sustainable Mountain Agriculture

The research focus of the Centre for Sustainable Mountain Agriculture (CSMA) is specific to agriculture development such as improved and sustainable method of crop production and food processing among others. The Centre conducts both the basic and applied research related to agriculture including livestock. The Centre is responsible for mobilization of funds from within and outside the country for faculty and student research. The centre also engages in collaborative research with relevant organization and provides advisory services in framing policies related to agriculture development.



RESEARCH AND PUBLICATION

Besides teaching, research is one of the main mandates of the Royal University of Bhutan. The faculty members of the College are therefore encouraged to conduct various types of research and innovation activities, which are relevant to the overall socioeconomic development of the nation and creation of new knowledge. The College focuses its research in the field of Agriculture, Animal Science, Forestry, Environment and Climate Studies, Natural Resources Management, and Sustainable Rural Development. The faculty members and students are encouraged to publish quality papers in international and national peer reviewed journals. The College also publishes its biannual journal called the Bhutan Journal of Natural Resources and Development. It is published both online and print. Besides the research and publication, the College also engages in providing consultancy services.



CULTURAL EXCHANGE & INTERNATIONAL STUDY-ABROAD OPPORTUNITIES

The Student and Staff Exchange Program at the College is an invaluable opportunity for students and faculty alike to broaden their academic horizons, cultural understanding, and professional networks. Rooted in the belief that exposure to diverse perspectives fosters innovation and excellence in research, the college substantially engages in staff/student research and mobility. The partnership between the College and the Bhutan Ecological Society (BES) represents a significant step towards promoting collaboration and academic exchange in the field of natural resource management.

The signing of a Memorandum of Understanding (MoU) between CNR and BES underscores our shared commitment to fostering student mobility and cross-cultural learning opportunities. Under this partnership, CNR welcomes a cohort of international students from various backgrounds and academic disciplines each semester. These students have the opportunity to immerse themselves in the unique academic and cultural environment of Bhutan while studying at the College. They can enroll in a diverse range of courses related to natural resource management, environmental science, conservation biology, and sustainable development, among others and education. The College's exchange programme facilitates collaborations with partner institutions worldwide.



National and International Partners of CNR

- Bhutan Agro-Industrial Limited
- Bhutan Ecological Society
- Europe- Erasmus+
- Jigme Singye Wangchuck Law School,
- Bhutan Ministry of Agriculture and Livestock
- Bhutan National Centre for Hydrology and Meteorology
- ECOLOG Institute for Social-Ecological-Research & Education, Germany
- Oregon State University, USA
- Sustainability Laboratory, USA
- Swiss Federal Institute for Forest
- Snow and Landscape- Research WSI Bhutan
- Tarayana Foundation
- Royal Society for the Protection of Nature
- Bhutan Foundation



INTERNATIONAL PROGRAMMES

The College has developed 20 different International Nature Education and Experience Programmes (INNE) both for Spring and Fall semesters. Of the 20 INEE programmes, 12 are Summer School programmes, three Semester Abroad programmes and five training.

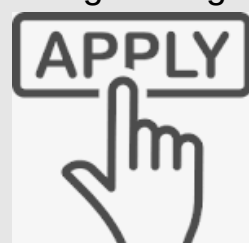
Programmes		Courses	Duration	Fee per student
Summer School	1	Biodiversity Survey Methods and Conservation Tools	14 days	USD 2,880
	2	Natural Resource Management		
	3	Nature and Wellness		
	4	Bhutanese Culture, Tradition and GNH		
	5	Bhutanese Food and Culture		
	6	Traditional Ecological Knowledge in the Himalayas		
	7	Agriculture Systems in the Himalayas		
	8	Living a Farmer's Life in the Himalayas		
	9	Climate-smart Agriculture using Geo-spatial Technologies		
	10	Wild Edible Plants of Bhutan Himalaya		
	11	Ethnomedicine of Eastern Himalaya		
	12	Learning Statistics using R		
Semester Abroad	1	Agriculture and Food Systems in Bhutan Himalaya	3 months	USD 5,022
	2	Biodiversity Conservation and Natural Resource Management		
	3	Ethnomedicine in Eastern Himalaya		
Training	1	Community-based Forestry for Conservation and Livelihood	7 days	USD 2,600
	2	Biodiversity Conservation Techniques		
	3	Organic Agriculture		
	4	Learning Statistics using R		
	5	Climate-smart Agriculture using Geo-spatial Technologies		

HOW TO APPLY

After choosing the programme you are interested in, fill the registration form and submit/email it to the following address:

Dean, Research and Industrial Linkages, dril.cnr@rub.edu.bt or Assistant Research Officer, twangmo.cnr@rub.edu.bt

The registration form is available in the following college web link: www.cnr.edu.bt.



International Students

The college provides open admission for international students under various scholarship in undergraduate and post graduate programmes.

Students from various countries like India, Nepal, Pakistan, Hungary, Afghanistan, Africa, US, Sri Lanka and Bangladesh, and from European countries have graduated.



ADMISSIONS

ADMISSIONS

Admission to CNR is done after the declaration of Class XII results. While all Class XII Arts, Commerce, and Science students are welcome to apply, please note that admission to the Sustainable Development programme is exclusively reserved for Arts, Commerce, and Science students based on merit ranking. Join us for an enriching academic journey where you'll have the opportunity to explore a wide range of courses and unleash your potential. Apply and take the first step towards a rewarding future at our esteemed institution.

International students who are interested in enrolling at the College should contact:
Research and Industrial Linkages Office at
dril.cnr@rub.edu.bt / twangmo.cnr@rub.edu.bt

APPLY NOW

Application guidelines are available on the CNR website -
www.cnr.edu.bt

- Apply online by completing the online form available on the website.

For any further queries on admissions, please send us an email at
dril.cnr@rub.edu.bt
twangmo.cnr@rub.edu.bt
singyew.cnr@rub.edu.bt

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