ADVANCED DIPLOMA IN ENVIRONMENTAL ENGINEERING

This three-year programme will provide the basic foundation courses and focus on the principles and practices of natural resource management, introduction to sustainable environmental management accounting, environmental legislation in PNG, geothermal energy technology and systems, environmental management and EIA/SEIA, operations and maintenance of environmental facilities, research methods, and ethical data collection and analysis and reporting, environmental pollution and remediation, disaster risk reduction and management, environmental policy and governance. Courses under this Advanced Diploma programme, will also look at gender and environmental politics, renewable energy and GHD reduction mechanisms. The programme will also highlight environment engineering field research project which will be affiliated with CEPA and CCDA, and linkages with industry and private sector enterprise.

IDEAL CAREER PATH

Graduands of programs of the School of Environment and Climate Change can find employment in one of the following positions.

- Ecologist
- Environmental Specialist
- Environmental Science Teacher
- Environmental Health & Safety Officer

Salt water intrusion, erosion and inundation are taking its toll and displacing people from many low-lying atolls in the Pacific Islands.
(retrieved from: https://www.abc.net.au/science/articles/2010/06/03/2916981.htm)

Climate Change effect causing sea level rise in a community.
(Sourced from: https://www.looppng.com/content/png-commences-program-building-resilience-climate-change)

FOR MORE INFORMATION
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PAPUA NEW GUINEA UNIVERSITY OF NATURAL RESOURCES AND ENVIRONMENT

SCHOOL OF ENVIRONMENT AND CLIMATE CHANGE

Coastal erosion washing away portion of the road along the Wewak-Wom road.
©Kim, Allen/UNDP (Sourced from: https://www.pg.undp.org/)

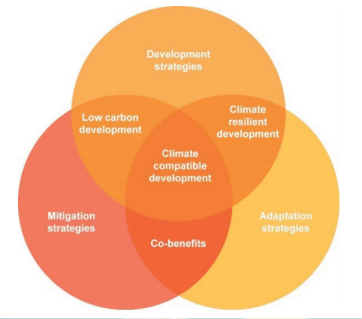
COURSE INFORMATION

BACKGROUND

The School of Environments and Climate Change (SECC) at UNRE was conceived in 2019, and on-the ground, work on establishing the SECC started with the arrival of the Dean in November 2019. Since that time, the SECC team has worked tirelessly in formulating Regionally relevant courses for the Undergraduate (Degree and Advanced Diploma) Programmes within SECC.

MOTTO

“Striving Towards Climate Compatible Development” (CCD)



Climate Compatible Development Venn-Diagram
(Sourced from: Zedek, 2009)

VISION

Our vision is to also help increase national, regional and international efforts to deal with climate change build capacity for local adaptation and mitigation measures in Pacific Island countries (PICs) in order to solve the enormous resource and environmental challenges facing the world now and in the decades ahead.

ENTRY REQUIREMENT

Entry requirement to any of the academic programs of the School of Environment and Climate Change is a Grade 12 Higher School Certificate grading of ‘A’ or ‘B’ in Language and Literature; Maths A (or Maths B); Biology; Chemistry; Physics; and one other subject, preferably Geography. You must have a GPA of 2.5 or higher.

ACADEMIC PROGRAMMES

DEPARTMENT OF CLIMATE CHANGE, HEALTH AND DEVELOPMENT

DEGREE IN ENVIRONMENT AND CLIMATE CHANGE (BSC.ECC)

This four-year programme provides students with the essential foundation courses as well as second year courses such as Climate Physical Science, Impacts & Adaptation, Mitigation Approaches to Climate Change, as well as Risk Perception and Risk Communication, Business Communication and Ecological Economics. Third and fourth-year courses will consist of Sustainability and Development under a Changing Climate, Critical Perspectives of Environment and Development, Business, Environment and Sustainability, Research Methods and Ethics, Ecological Economics and Terrestrial Biosphere and Earth Systems. Fourth year courses in this programme will include Climate Change Policy and Literacy, Policy Responses and Options, Water Environment Governance, and Food Security and Sustainability Policy and Governance. Fourth year courses will also include Environment and Climate Change Field School; which will be affiliated/associated with government agencies organizations involved in Environment and Climate Change (e.g. CCDA, CEPA) and LLG (Local Level Governments).

ADVANCED DIPLOMA IN ENVIRONMENTAL HEALTH (ADIP. ENV.H)

This three-year programme is highly relevant in Papua New Guinea given its fundamental importance within national interest in environmental health and the recent COVID19 crisis. The programme provides students’ with the essential Foundation Programmes in first year (Environment Sciences, Intro to Climate Change; Introduction to Geohazards and Geosciences) and other core Programmes in the Advanced Diploma programme such as Climate Change: Physical Science Basis, Climate Change Impacts and Mitigation, Climate Change Mitigation, Environmental and Social Impact Assessments, Population Health, Environmental Health, Law And Compliance, Environmental Health Professional Practice and Concepts of Environment Health in PNG and other Pacific Islands. The programme looks at Infectious and Communicable Disease Control, Health Promotion Planning, and Administration and Environmental Health Law in PNG. It is anticipated that the Advanced Diploma Programme in Environmental Health strand, will also include professional practicum/practical in environmental health within the PNG Health Ministry.

DEPARTMENT OF ENVIRONMENTAL ENGINEERING

DEGREE IN RENEWABLE ENERGY AND ENVIRONMENTAL ENGINEERING (BSC.RE.EE)

This four-year programme is highly important for students particularly in the ENB Region. Teaching, learning and research will be focused on renewable energy and environmental engineering; taking into consideration the importance of GIS and GPS systems, environmental biology, global climate change, bioenergy, hydroelectricity technology and systems, solar photovoltaics, title power, wind energy technology and systems, and biomass energy waste technology and systems. The program will also cover computer and GIS applications environmental engineering, ecological evaluation for EIAs, Occupational Health & Safety and operational maintenance of environment facilities. It will also offer in the fourth-year, life cycle assessment management, fluid mechanics, strategic leadership and ethics, and renewable energy and environmental research field project. It is anticipated that students in this course will be supported by CCDA and CEPA, through the MOU between these two important government institutions and UNRE-SECC.

ADVANCED DIPLOMA IN CLIMATE CHANGE ADAPTATION AND MITIGATION (ADIP.CCA&M)

The Advanced Diploma Programme in Climate Change Adaptation and Mitigation is a three-year Advanced programme in highly relevant climate change adaptation and mitigation courses that are both practical and are highly significant Regionally and Nationally, based on the PNG Government Climate change programmes and projects as well as demand for course and practical programmes at the national level. The programme will consist of the required foundation courses, plus climate change impacts, vulnerability and adaptation, climate science, environment impact assessment, and strategic environment assessment, cryosphere science, ridge-to-reef ecological relations and climate change, disaster risk reduction for resilience, mitigation and adaptation practices and urban and rural resilience in PNG and other Pacific Islands regions. The programme will also highlight the effects of global warming, community-based adaptation to climate change in PNG, economics of climate change, perspectives of climate change adaptation and resilience and leading sustainable change. This program will highlight the importance of practical field research and coordinate with CCDA to engage students in practical adaptation and mitigation practices.