

Create new knowledge through the CDU Higher Degree by Research program

Webinar Housekeeping



Video and audio – all attendees are on mute to avoid distractions



We welcome all comments and questions via the chat box



Materials will be shared with all attendees



ON AIR

This webinar is being recorded

Achievements

CDU's research focuses on improving the lives of the people in our region; in understanding and making better the societies, economies, health and environments of Northern Australia and the Asia-Pacific region.

\$500+ Million in healthcare savings for the prevention of Indigenous psychological illness and malaria outbreaks in Australia and the Asia-Pacific Region.

\$130 Million in carbon abatement contracts sold by Traditional owners as a result of CDU research.

50 per cent reduction in melioidosis mortality in the Northern Territory.

40 per cent reduction in Aboriginal and Torres Strait Islander depression cases resulting in taxpayer savings of \$71.7 million in 2017

Higher Degree by Research (HDR)

- CDU offers 2 HDR courses - PhD & Masters by Research
- Entirely research based course, producing a thesis for external examination
- PhD is 3-4 years, Master by Research is 2 years
- Each candidate may have a supervisory panel of 3 supervisors
- HDR projects are aligned with the research undertaken in the Institutes/Centres & Colleges. Our research supports the unique environments & communities of the Northern Territory.
- 2024 annual fees for HDR programs is **AUD\$33,704**



HDR Campus Locations

Casuarina Campus



Waterfront Campus



Sydney Campus



Fiona Steele Manager HDR

At CDU, HDR candidates are supported by our Research Enhancement Program.

This program covers a range of workshops, competitions, the HDR student conference, & other development opportunities.



CDU research institutes and centres



Menzies School of
Health Research



Research Institute
for the Environment
and Livelihoods



Northern Institute



Energy and
Resources Institute



Research Institute for
Northern Agriculture



Molly Wardaguga
Research Centre



Centre for
Creative Futures



North Australia Centre
for Autonomous Systems



NT Academic Centre
for Cyber Security
and Innovation



Wellness Centre



First Nations Sovereignty
and Diplomacy Centre

Menzies School of Health Research

WELLBEING AND PREVENTABLE CHRONIC DISEASES

Our areas of research include:

- Diabetes
- Renal
- Centre for Health and Other Complex Systems
- Rural and Remote Health Services
- Mental Health and Wellbeing
- Tobacco Control and Housing
- Nutrition
- Cancer



CENTRE FOR CHILD DEVELOPMENT AND EDUCATION

Our work involves:

- Research to support parents, youth and children through better services and interventions in their communities. We work in the NT and across Australia to support the development of services to promote child development and wellbeing



GLOBAL AND TROPICAL HEALTH

Our areas of research include:

- Malaria
- Health system strengthening in Timor-Leste
- Melioidosis
- Zoonotic and emerging infectious diseases
- Rheumatic fever and rheumatic heart disease
- Tuberculosis
- Viral hepatitis

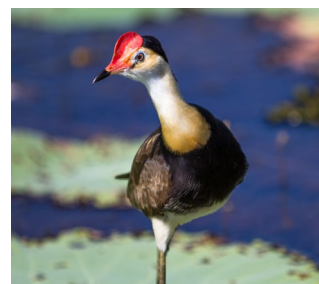
CHILD AND MATERNAL HEALTH

This Division investigates:

- maternal and child health, from womb to birth, from pre-conception to postpartum, from maternal health to child and to adolescent health.
- Growing research evidence continues to demonstrate that what happens in utero and in early life, influences long-term health.

Research Institute for the Environment and Livelihoods

<https://www.cdu.edu.au/riel>



Biodiversity conservation

- Environmental monitoring & management
- Terrestrial ecology
- Animal movement & behaviour
- Threatened species conservation & management
- Invasive plant & animal management
- Native vegetation restoration
- Post-mining environmental service restoration

Communities & livelihoods

- Restoration, rehabilitation & collaborative management of mangroves
- Capacity building for natural resources management in terrestrial & marine environments
- Participatory land & sea management
- Gender, security & rural livelihoods
- Natural resource-based enterprise development

Savanna & arid ecology

- Amphibian & reptile ecology & physiology
- Arid zone ecology
- Animal movement & behaviour
- The use and impact of fire as a land management tool
- Invasive plants & animal management
- Threatened species management
- Refugia & biodiversity

Water & catchments

- Aquatic ecology
- Animal movement & behaviour
- Population dynamics
- Microbiological characteristics
- Water quality
- Effect of human disturbance on aquatic ecosystems



Northern Institute



<https://www.cdu.edu.au/northern-institute/research>

Our Research & Evaluation Domains

Indigenous Knowledge & Governance

Focuses on exploring collaborative approaches to working across Indigenous & western knowledge systems to engender new institutional & governance practices in achieving shared community, industry & government goals.

Population, Workforce & Sustainable Economy

Focuses on analysing population change & mobility in regional & remote communities, and on the planning & implementation of sustainable regional, economic & social development.

Education, Health, Wellbeing & Community

Focuses on developing innovative policies, programs & practices that support individual & community wellbeing, educational opportunity, and good health as a process of equity & social justice.

Environment, Climate Change & Indigenous Science

Focuses on understanding human-environment relations, developing resilient and sustainable responses to climate change, and working with Indigenous science in tackling socio-environmental issues.

Policy & Program Evaluation and Analysis Evaluation

Focuses on conducting evaluations that help understand how policy & community partnerships can be used to improve outcomes for service delivery across the government & non-government sectors.

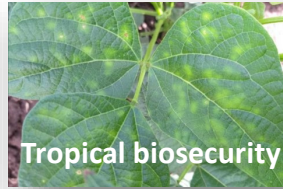


Research Institute for Northern Agriculture (RINA)

RINA creates and develops a critical mass of research excellence at CDU to address the research, technical and innovation needs of northern Australia's agricultural and aquaculture sectors, including First Nations enterprises.



We study biology, animal behaviour and animal welfare as applied to tropical aquaculture systems. Our research in tropical aquaculture encompasses new species development; bioremediation; aggression, growth, heat resilience and other key variables among cultured stock.



We undertake multi-disciplinary research across invasive animal, plant and aquatic pests and diseases and collaborate with industry, industry bodies and government to provide students with opportunities for professional development as well as career progression in biosecurity.



We tackle pressing issues by providing farmers with knowledge about how crops respond to climate fluctuations and resource availability. Utilizing approaches such as carbon farming and precision agriculture, we not only enhance crop yields but also help alleviate the impacts of climate change.



We apply understanding of the plants, animals and environments that make up the pastoral systems of the Northern Territory and Asia. Our main research interests are to improve food system sustainability, pasture systems, pasture agronomy and plant nutrition and to improve animal health and welfare linking of soil and plant nutrition to human, animal and environmental health.

Research Areas

Energy & Resources Institute



<https://www.cdu.edu.au/engineering-it-environment/research/eri>

The Energy & Resources Institute provides high quality research & consultancy for all aspects of energy & resources, including engineering, scientific, economic, environmental, social, community, legal, policy, & digital considerations.

The institute was set up with the following aims:

- Build world-class research capability in energy and mining related areas.
- Enhance the research profile of the university through development of research programs that will lead to world class research outputs.
- Develop strong industry partnerships with local, national and international industries.
- Develop collaborative networks with other academic and research institutions both nationally and internationally.



Molly Wardaguga Institute for First Nations Birth Rights



The Molly Wardaguga Research Centre will be internationally recognised for innovative and transformative research for the best start in life across the first 2,000 days (conception to age 5). The research by this centre is underpinned by a social justice framework that actively addresses inequity & discrimination. This centre will have a focus on redesigning, optimising & evaluating health services, investing in the health & research workforce, Strengthening family capacity & engagement with communities & systems.

<https://www.cdu.edu.au/mwrc>



Planetary Health (Sustainability)



HDR supervisors across our three Faculties – Health, Arts and Society and Science and Technology – who are supervising HDR projects under the broad scope of Planetary Health (sustainability):

- The impact of waste on psychological and physical health
- Reducing medical waste
- Impact of heatwaves on healthcare service delivery

To discuss project ideas:
foh_researchhdradmin@cdu.edu.au



NT Academic Centre for Cyber Security and Innovation



<https://www.cdu.edu.au/acci>

The vision of the NT Academic Centre for Cyber Security and Innovation (ACCI) is to be an internationally recognised research centre that conducts multi-disciplinary research to bridge the social-technical divide between academia, industry, and government, and to provide research and training on technical and non-technical aspects.

The centre brings together 25+ research active staff across CDU that use a multi-disciplinary approach to promote innovative research in Information and Computing Sciences, with a focus on: Cyber Security, Data Science and Artificial Intelligence.

Key research areas include:

- Cyber security governance and risk management
- Human-centred security and AI
- Organisations and cybercrime
- Health informatics
- Critical infrastructure security
- AI for environmental and social good



Advanced Manufacturing Alliance



- **FAST** – up to 1000 x faster than traditional metal 3D printing
- **FLEXIBLE** – with on-demand part numbers, you can produce a run of 1 or 100 parts with ease
- **LOW COST** – LightSPEE3D achieves a similar cost to casting & uses common materials (copper & aluminium)
- **STRONG** – LightSPEE3D unlocks Cold Spray metal manufacturing technology to produce high density (>99% dense) complex parts with low thermal stress

SPEE3D Cold Spray Machine



Cold Spray

Core metal producing technology
Strong materials (>99% density)
Metal doesn't have to be melted

Research Areas

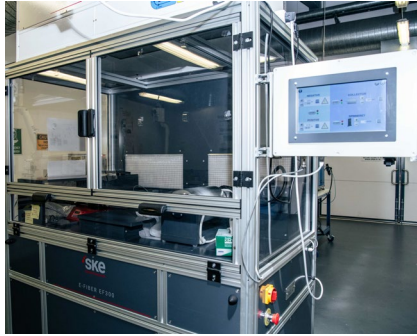
- Powder blending
- Solid state and liquid-phase sintering
- 3D printing of ceramics and hardfacing alloys

Research Areas

- Metal powder production
- Machine Learning for defect reduction & alloy production

<https://advancedmanufacturing.cdu.edu.au/>

Manufacturing Analytical Facilities



Nanofibre Manufacturing

Scanning Electron Microscope



Xray Diffraction Instrument

PhD
scholarships
available in
AMA

Engineering Research Facilities

Our laboratory provides numerous facilities, including highly sensitive and accurate devices and equipment for different tests and research activities.

- Electroencephalogram (EEG) - data acquisition system in our lab which utilizes G.Tec USB biosignal amplifier (Guger Technologies OG, Austria)
- G.Tec g.GAMMASYS active electrode system
- G.Tec g.GAMMAcap.
- ER.2 insert earphones via an external sound card (Creative Sound Blaster Omni Surround 5.1) together with the EEG acquisition system



Current Research Areas

Auditory Research (Hearing and EEG)

This research aims to develop, test and evaluate an approach towards building an objective methodology to detect binaural processing in the human brain using auditory EEG evoked potentials

Cardiovascular Disease Research (ECG Signal Processing/Classification)

We intend to develop methods, which provide a quantitative evaluation of particular signal features and classify particular patterns.

Machine Learning in Health Informatics

Machine Learning has opened up a plethora of opportunities in Health Informatics research, where versatile applications of general Machine Learning and Deep Learning have the potential of making a major difference. Current research areas include:

- Cancer Detection
- Prediction of Cardiovascular Disease

For more information visit:

<https://www.cdu.edu.au/engineering-it-environment/engineering/research/biomedical-engineering>

Centre for Creative Futures



The Centre for Creative Futures was established with the belief that collaboration and creativity are essential for cultures of survival, renewal, and resilience in a climate-changed future.

Reaching across disciplines, communities, and cultures, CCF brings together the arts, social sciences, humanities, and sciences to produce research that is accessible, meaningful, and impactful for the people, places, and futures of North Australia and beyond.

<https://www.cdu.edu.au/arts-society/centre-creative-futures>

North Australia Centre for Autonomous Systems (NACAS)

The North Australia Centre for Autonomous Systems (NACAS) conducts integrated industry-focused research into the application of autonomous systems across industries, businesses, and other sectors in northern Australia and the Asia Pacific regions.

<https://www.cdu.edu.au/nacas>



Cheryl Brennan
Regional Marketing Manager
CDU Global

International Student Research Scholarships



Australian Government Research Training Program (RTP) Stipend

- Australian Government RTP Stipend Scholarships are competitively awarded to students of exceptional research potential to undertake a HDR at an Australian University. The scholarships are provided to assist with general living costs and fees.
- The [Australian Government RTP Stipend Scholarship](#) provides an indexed stipend—paid fortnightly—of \$32,192 per annum (2024 rate).
- CDU RTP stipends are competitive and the University will consider a range of information including but not limited to; GPA, publications and research experience, previous University ranking, strategic alignment of the project. Scholarships are normally only awarded to PhD projects.
- [For more information, please visit RTP Scholarships - FAQs.](#)

International Scholarship Ranking RTP

Scholarship Round 2024



International Stipend Assessment will be given a ranking out of 10 based on:

1. Qualifications (to a maximum of 5 points)
2. Refereed Publication (to a maximum of 5 points)

All scholarship applications will be ranked in accordance with the ranking criteria. However as outlined in the Commonwealth Scholarship Guidelines (Research) 2017 University's are able to "give priority to a class of students such as Indigenous students, low socioeconomic status (SES) students, students undertaking research in a particular discipline or emerging area of research strength, or students undertaking a HDR for the first time".

This configuration of a score through this matrix ensures that almost all disciplines have an opportunity to be successful.

CDU will give priority to students undertaking a doctoral degree for the first time. As a matter of equity, students commencing their second doctorate will be eligible to apply but will be considered for a stipend after all the candidates undertaking the PhD for the first time are considered.

Ranking Criteria

Section 1 – Qualifications A maximum of 5 will be allocated for Section 1.

Ranking	Honours	Research Masters	Coursework Masters (dissertation component)
5	H1	HD or D; ungraded Pass*	-
4	H2A or H2.1	Cr	-
3.5	-	-	HD/D
3	H2B or H2.2	P	-

** in case of an ungraded pass Research Masters, a verifiable institutional record confirming that the candidate's thesis is in the top 5% of research will grant an allocation of 5 points.*

Section 2 – Refereed Publications A maximum of five points will be allocated for Section 2. The publications must be published and verified at the time of the University's ranking process to be considered in the ranking. "Under review" publications will not be considered.

Publication	Point Value
Singly-authored scholarly monograph	1
Singly-authored peer review article	0.8
First-authored peer review article	0.7
First-authored refereed conference paper	0.6
Peer-reviewed NTRO	0.5

Support and Services



We're a research-intensive university with a commitment to building collaborative, co-designed research support.

- Research and Innovation (ORI) provides high quality support and administration of HDR candidates from admission to completion. CDU Faculties provide specialised project support for HDR projects.
- CDU's research support is a result of strong collaboration and coordination between Research and Innovation (ORI), CDU Library, Information Technology Management Services (ITMS), CDU Global, Menzies School of Health Research, and our Faculties, Research Institutes, and Centres.
- Our support is constantly being improved with input from our research staff and students.

HDR Entry Requirements



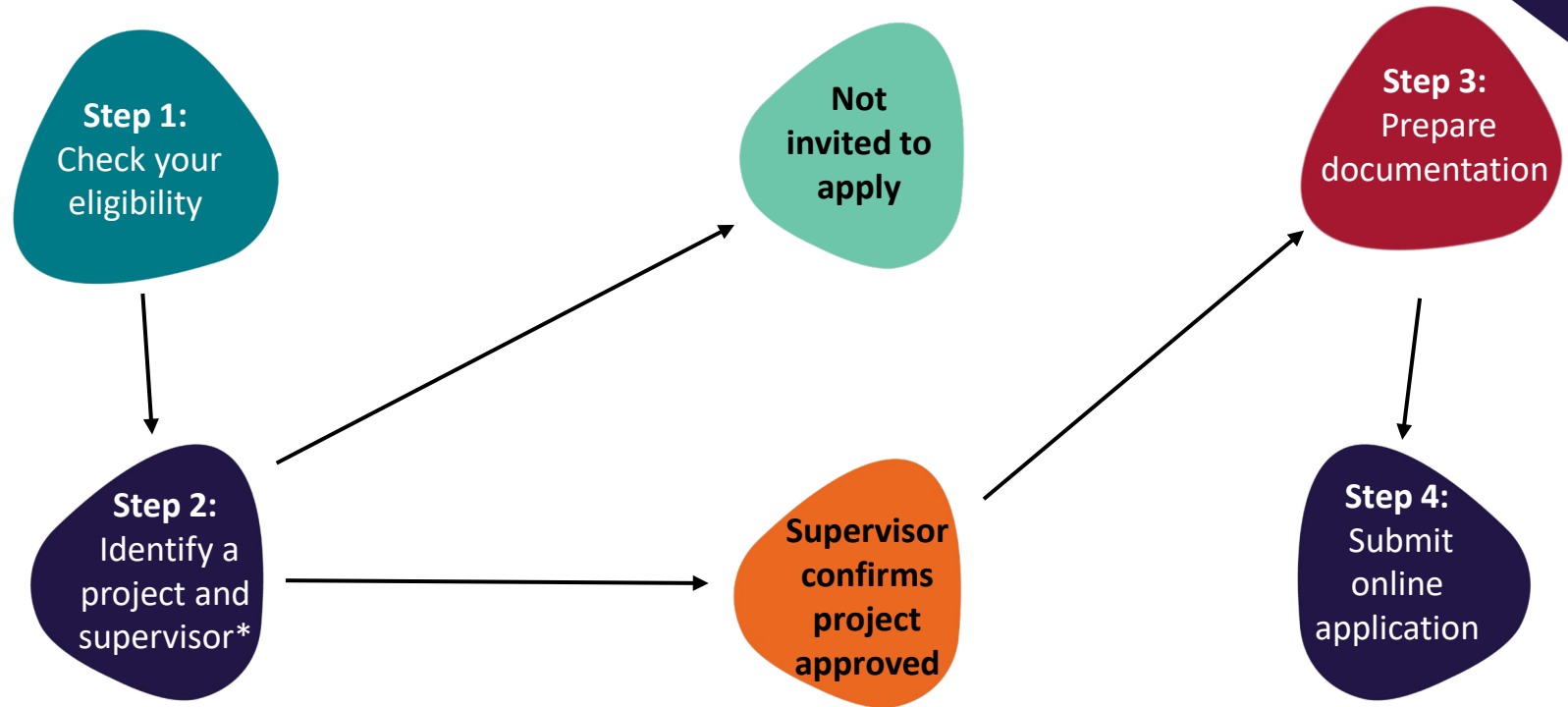
To be eligible for entry to a **Master by Research**, you should have completed either:

- A Bachelor Honours degree with first-class or second-class honours or
- A Master by Coursework or Extended Masters, which contains a substantial research component
 - To achieve minimum academic proficiency for Master by Research applicants must've completed
 - At least a semester full time enrolment in relevant research activity at AQF 8 or higher or
 - Equivalent levels of research activity as approved by the Dear of Graduate Studies

To be eligible for entry to a **PhD** you should have completed either:

- A Bachelor Honours degree with first-class honours or second-class honours division or
- A Master's qualification that contains a substantial research component
 - To achieve minimum academic proficiency for Master by Research applicants must've completed
 - At least a semester of full-time enrolment of relevant research activity and achieved a GPA equivalent to Distinction or
 - At least one semester of full-time enrolment of relevant research activity at AQF level 9 or above or
 - Equivalent levels of research activity as approved by the Dear of Graduate Studies

HDR Application Steps



*If you need help with identifying a supervisor, contact the CDU Global team at international@cdu.edu.au.

Identify A Project & Supervisor



- Identifying a supervisor and a project is a crucial step before applying for admission into a research degree at CDU:
- If you have not already developed a project outline here is a [list of projects](#) that CDU academics are willing to supervise.
- If you have not identified a supervisor, please skim our [supervisor profiles](#) or for more comprehensive information visit our [Research Webportal](#)
- As part of the application process, you must provide written confirmation from a CDU supervisor that they are willing to supervise your proposed project.

Research Proposal Requirements



- A research proposal should usually comprise about 1,000 to 2,000 words and include:
 - a brief literature review to justify the research question and project
 - an outline of the methodology and methods that will be implemented, and
 - information about the feasibility of this project, such as:
 - Timelines including; full research proposal, confirmation of candidature, data collection, ethics application, submission etc.
 - resource costs of the project
 - ethical concerns (you should include a statement to confirm whether the project will require ethics approval).

Necessary Documentation



Required documents include but are not limited to:

- Certified copies of all post-secondary qualification documents such as transcripts of results, award certificates, grading systems, and English translations, if required
- Project Outline – all applications must be accompanied by a brief research outline (1000 - 2000 words or 3-4 pages) on the proposed research project. Your outline should include: project title; general field of research; proposed principal supervisor; brief description; ethical considerations; resource implications; field work requirements; and any other relevant issues to the research.
- Research Output such as research publications
- Proof of English language proficiency – please visit our Entry Requirement page for more information: <https://www.cdu.edu.au/international/how-apply/entry-requirements>
- Copy of passport showing personal and visa details
- Detailed resume with a list of publications
- 2X [The referee report form \(PDF, 64.87 KB\)](#) should be completed and sent by your referees directly to the University department mentioned in the form.
- Supervisor's confirmation in writing (e.g. email correspondence)

Apply Through An Education Agent



Applications to CDU are best submitted through a CDU education agent. Your agent will help smooth the process for you final application and will assist you in securing a student visa. The process is simple; you may search for an education agent in your region at <https://eap.ascentone.com/cdu>.

Higher Degree by Research degrees are categorised as either low-cost or high-cost fields of education. Applicants can select either low-cost or high-cost during the application process, however, these costs are determined upon approval for an offer of admission. There is no difference in the entry requirements or documents required for a full application.

Connect with us

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twitter.com/CDUUni



au.linkedin.com/school/charles-darwin-university



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weibo.com/charlesdarwinuni

