2010 Science Experience
‘Science for Sustainability’
15th – 17th of June 2010

Report

‘A 3 day innovative and interactive program supports and enhances the learning of territory school students, in the areas of Science, Engineering and Technology’

Proudly hosted by Charles Darwin University

Faculty of Education, Health & Science
School of Environmental & Life Sciences
School of Engineering & Information Technology
School for Environmental Research

Surveying & Spatial Science Institute

SIEMENS Australia

Rotary Club of Darwin South
Rotary Club of Darwin Sunrise

Experience $8 Student Mondays

Wildlife Management International

Minister Dr Chris Burns MLA, Minister Rob Knight, Member for Daly, Hon Warren Snowden MP - Member for Lingiari NT, Terry Mills MP - Member for Blain NT & Kezia Purick MLA - Member for Goyder
2010 Participating Schools (In Alphabetical Order)
- Darwin Middle School (15)
- Dripstone Middle School (11)
- Essington School Darwin (10)
- Katherine High School (4) – All staying with one student’s uncle
- Kormilda College (3)
- Marrara Christian College (10)
- Sanderson Middle School (10)
- St Johns College (15)
- Taminmin High School (22) – CDU Bus provided daily transport to and from the University

Total Students Registered: 100
Total Students in Attendance: 99
Identified as Indigenous or Torres Straight Islander: 12
Billeting Families: 2 offers - nil used
Schools with no registration: Nightcliff Middle School, Henbury School, O’Loughlin Catholic College, Palmerston High School, Palmerston Christian School and Good Shepherd Lutheran College.

National Student Registration cost rose from $105.00 pp in 2009 to $110.00 pp, with the administration free rising from $7.00 to $35.00, CDU negotiated an administration fee of $20.00 pp. All of CDU Science Experience participants are sponsored, therefore NT Students have never paid the National Registration cost since we commenced delivery in 2007. The National Office provided 125 Science Experience bags and Certificates at no cost, as well as marketed and provided information on the National program to NT Secondary Schools.

Students:
All registered students have provided media permission and received notification of acceptance via the post, program information & map of the university – student name tags list their sponsor and they are provided a stamped addressed envelop to reply to sponsor.

2010 Valued Sponsors
- Minister Chris Burns, Department of Education & Training (DET), Northern Territory Government
- Acting Chief Executive Mr Rod Gobbey, Department of Resources (DoR) Primary Industry, Fisheries & Resources, Northern Territory Government
- Cameco Australia Pty Ltd
- Minister Dr Chris Burns MLA
- Minister Rob Knight, Member for Daly
- Hon Warren Snowden MP - Member for Lingiari NT
- Terry Mills MP - Member for Blain NT
- Kezia Purick MLA - Member for Goyder
- Surveying & Spatial Science Institute NT
- Rotary Club of Darwin South
- Rotary Club of Darwin Sunrise
- Menzies School of Health
- Greater Union Birch Carroll & Coyle Cinemas (Prizes)
- Prof Grahame Webb, Crocodylus Park, Wildlife Management International (Activity Session)
- SIEMENS Australia (Student Bags)
- Community Engagements SchoolsLink, Charles Darwin University
- Corporate Communications, Charles Darwin University (Reception Services)
- Teaching Learning Quality Group, Charles Darwin University (Prizes)
Invited speakers and distinguished guests
Official Opening: Vice Chancellor of Charles Darwin University – Prof Barney Glover, a representative on behalf of the Minister of Education and Training, Mr Mark Hough on behalf of the CEO Department of Resources, and introduction of the National Director of the Science Experience – Jacqueline Bellars.

Introduction & Master of Ceremonies & Closing & Prizes: Dr Diane Pearson – Acting Head of School, Environmental & Life Sciences and Environmental & Applied Science Discipline leader, Charles Darwin University

Local Organising Committee
- Dr Diane Pearson (Local Director, Chair, Program & Sponsorship) – Environmental and Applied Science Discipline Leader, School of Environmental & Life Sciences, Charles Darwin University.
- Trisha Mellow (Treasurer, Secondary School Liaison, Webpage, Sponsorship, Certificates & Photo’s) – Secondary School Liaison, SchoolsLink Community & Access, Office of Senior Deputy Vice Chancellor, Community Engagements, Charles Darwin University.
- Professor Chris Austin – Head of School, School of Environmental & Life Sciences, Charles Darwin University.
- Professor Friso De Boer – Head of School of Engineering & Technology, Charles Darwin University.
- Michael Howard – Laboratory Manager; School of Environmental & Life Sciences, Charles Darwin University.

Science Experience Marketing & Website:
Flyer, Letters and emails were forwarded to all School Science Coordinators & Yr 9 Science Teachers
CDU SE Webpage link email out to NT School Science Coordinators & Yr 9 Science Teachers
EHS Faculty Webpage & CDU Community & Access SchoolsLink Webpage with 2007, 2008 & 2009 Program, Sponsors & Photo’s and 2010 Program Booklet, Sponsors & Registration Information
National Website – Link to CDU SE Webpage

2010 Charles Darwin University Science Experience

Students are split up into 4 groups that are colour coded and named after eminent scientists

Green Group = Einstein  Blue Group = Darwin  Orange Group = Newton  Yellow Group = Curie
Day 1

Seminar – ‘Climate change in the Top End’

Global climate is being changed by increases in concentrations of greenhouse gases (carbon dioxide, nitrous oxide and methane) as a result of human activities. Predicted changes globally include higher average temperatures, more frequent heat waves, more intense rainfall, increases in the area affected by droughts, more intense tropical cyclones, and a higher sea level. But there are complications. Knowing the likely global changes to climate does not mean that we know what will happen locally, in this case in the Top End. Rainfall has been increasing in the Top End since 1975, probably because of increased temperatures in southern Australia that 'sucks' the monsoon inland, and because of ‘brown clouds’ from Asia that intensify the monsoon. Will this continue? If it does, the temperature will not rise as much as it could? What is clear is that rainfall, including that from tropical cyclones, will become more intense. And sea level will rise. Impacts on houses, roads, soil erosion, and river flow can be expected.

By Prof Robert Wasson, Deputy Vice-Chancellor Research, Charles Darwin University

Exercise and Sport Science – Physiological Testing

Exercise and Sport Scientists are experts in understanding how human bodies respond to exercise and how to make a difference to the quality of life for all people. Exercise and Sport Scientists use exercise as an intervention to improve health and fitness, enhance physical performance and prevent and rehabilitate injury in both healthy and physically challenged populations. In this activity students will participate in a physiological test designed to test their speed, reaction time and power.

Dr Liam Johnson, Lecturer Exercise and Sport Science, School of Environmental & Life Sciences, CDU

Aquaculture

Students will tour the aquaculture complex to see the animals under culture these include Barramundi, Fresh Water Crayfish, and the beautiful Coral Display Tank. Special features of the animals will be explained. You will definitely get your hands wet on this tour. Sessions to be conducted by Lecturers and Technical Staff and course information and contacts provided.

Kathy Kellam and Daniel Kimberley Aquaculture - Department of Primary Industries and Community Services Industry Division, CDU
Excursion to Crocodylus Park: Presentation

‘Sustainable use of wildlife a conservation tool’

Photograph courtesy of the 2010 Science Experience

‘WMI owns and operates Crocodylus Park. Crocodylus Park is a wildlife research and education centre which focuses on the sustainable utilisation of wildlife especially crocodilians. WMI has increasingly been involved in assisting the marketing of products derived from approved wildlife management programs. Programs which link wildlife and people together, enhance conservation by providing tangible benefits to communities for their conservation efforts. Underlying WMI’s efforts is the realisation that traditional, cultural and economic dependence on wild plants and animals varies greatly from culture to culture, within and between countries. WMI encourages programs where commercial wild harvesting can provide economic benefits for people and governments to invest in the conservation of wild species and habitats.’

Prof Grahame Webb, Managing director of Wildlife Management International (WMI)

DAY 2

Seminar – ‘How Will We Power The Future?’

Photographs courtesy of Internet and 2010 Science Experience

After starting his career in Aerospace Engineering, Simon developed a passion for renewable energy. Over two years, he helped improve the design of the huge ‘solar dishes’ powering the outback Australian communities of Hermansburg, Lajamanu, Yuendumu, and Umuwa. He joined CDU after moving to Darwin in 2009, where his first task was to help establish a Centre for Renewable Energy in the Northern Territory. Simon’s seminar explores the pressing issue of energy supply in an era of diminishing resources, burgeoning global population, and environmental pressures. How will we power the future?

Mr. Simon Hobbs, Lecturer of Mechanical Engineering, School of Engineering & IT

Engineering - Slot cars

Photographs courtesy of the 2010 Science Experience

Our activity for this day will involve launching slot cars from an inclined track. The angle at which the track can be inclined is variable, and the aim for the students is to determine the angle which allows the cars to travel the greatest distance before hitting the ground. No, the answer is not 45° as predicted by physics. This is a new experiment and we will have four sets of equipment, so students will work in groups of about six. This will give them a chance to practice effective teamwork to achieve the task within the time set as well as explore the problem we have set for them.

Dr Greg Heins
Senior Lecturer, School of Engineering & Information Technology, CDU
Pharmacy

The pharmacy activity is a new activity for this 2010 CDU Science Experience. Since 8000 BC there are records of medicines and pharmaceutical preparations created by humans and use for humans and animals. This activity is about an old preparation in pharmacy; the ointment. This activity will demonstrate the skills required for a pharmacist to make up the preparation from a plant sample and how this type of preparation is still utilised today. We will make a simple pharmaceutical preparation containing the extracted product. Also demonstrate how Alfred Nobel elaborated the dynamite and why chemistry is so important and is fun in pharmacy.

Assoc Prof Pascale Dettwiller, Head of Pharmacy Discipline, Dr Jackson Thomas, Lecturer in Pharmaceutics and Dr Damien Fagan, Lecturer in Therapeutics and Pharmacy Practice, School of Environmental & Life Sciences, CDU

Allied Health

‘The importance of recombinant proteins for vaccine and diagnosis of parasitic diseases’ The field of biotechnology owes a great deal to the ability to produce recombinant proteins, which can be made if far greater abundance than some native proteins, and are more easily quality controlled. This session is aimed to explain the importance of recombinant proteins in medical and veterinary research.

Dr. Rama Jayaraj, Lecturer in Allied Health, School of Environmental & Life Sciences, CDU

Water Quality

Clean fresh water......Where does it come from? As a chemical compound, nothing could be simpler than water: two atoms of hydrogen joined to one of oxygen. Though water covers our world, more than 97 percent is salty. Two percent is fresh water locked in snow and ice, leaving less than one percent for us. By 2050, a third of the people on Earth may lack a clean, secure source of water. We need to rethink how people and communities use and manage this precious commodity. In the developed world, the clean water we get from our tap is only the final stop. In some developing countries, citizens expend a lot of energy just accessing their water and when you spend hours hauling water long distances, you measure and treasure every drop. We will be investigating and discussing the sustainable use of water.

Mr Michael Howard, Laboratory Manager, School of Environmental & Life Sciences and Ms Elizabeth Duguid, Technical officer, School of Environmental & Life Sciences, CDU
TRaCK (Tropical Rivers and Coastal Knowledge) is a research hub under the Commonwealth Environmental Research Facilities scheme, managed by the Department of Environment, Water, Heritage and the Arts. TRaCK draws together more than 70 of Australia’s leading social, cultural, environmental and economic researchers. The research from TRaCK focuses on the tropical north of Australia from Cape York to Broome. At a time of increasing awareness of the value of water across Australia, it is vital that public debate, policy and management decisions about our tropical rivers and estuaries are informed by sound science. TRaCK provides the science and knowledge that governments, communities and industries need for the sustainable use and management of Australia’s tropical rivers and estuaries.

Assoc Professor Michael Douglas, Director of TRaCK, School for Environmental Research, CDU

‘Sustainable Harvest’ Indigenous management and sustainable use of wildlife

This session will provide an overview of the importance of having Aboriginal people on country providing Indigenous Natural and Cultural Resource Management. It will talk briefly about the role of the Indigenous Ranger Program in the Northern Territory with a focus on use of wildlife to supplement an income ‘on country’. Three examples of wildlife use (wild harvest and value adding of billy goat plum, wild harvest of cycad plants and fronds, domestication of native honey bee) will be discussed. We will also talk about the role that the University plays (through VET trainers, ecologists, economists, and facilitators) in helping ranger groups set up sustainable enterprise.

Mr Julian Gorman – Northern Land Council/School for Environmental Research, CDU and an Indigenous Rangers

Spatial Science for survival

This exercise introduces students to spatial science through hands on experience of field based spatial technologies, mapping and navigation systems. This fun activity will test which groups will be able to survive by using a variety of spatial techniques to find their way to essential water, food and shelter.

Dr Karen Joyce and Assoc Prof Stefan Maier, Tropical Spatial Science Group, School of Environmental & Life Sciences, CDU
Mangroves and their Fauna

"On the entire face of the earth there is not a more unpleasant, uncomfortable place than a mangrove swamp. If the stench of slime and putrefying vegetable matter, with its oily scum and the bubbles of gas it discharges, is nauseating, the reptiles and insects that make it their home, preying on each other, are creatures of nightmare." This is how Captain W.E. Johns, author of the "Biggles" books, described the mangrove forests of Burma. In this activity, we will try to prove Captain Johns was (mostly) wrong! Mangrove forests are fascinating places which demonstrate the amazing ways in which plants and animals adapt to different environments. Students will take a short walk through the mangroves of Rapid Creek, learning something of their fauna. A particular emphasis of this activity is on birds and snakes.

Dr Richard Noske, Mohd Azlan Jayasilan A. Gulan Azad, School for Environmental Research and Emma Francis, School of Environmental & Life Sciences, CDU

Biodiversity

This activity will look at biodiversity and the amazing variety of small creatures living in simple environments

Dr Keith McGuinness, Senior Lecturer Zoology, School of Environmental & Life Sciences, CDU
2010 CDU Science Experience Student Evaluation Results (85 of 100 Evaluations were collected)

1. Have you heard of the 3 day CDU Science Experience before?
   Yes – 19 (22%)  No – 63 (74%)  No Response – 3 (4%)

2. What areas were you interested in learning about the most?
   Science – 25 (29%)  Engineering – 17 (20%)  Technology – 10 (12%)  All of them – 33 (39%)

3. Did the event give you a better understanding of the many Careers available?
   Yes – 82 (96%)  No – 1 (1%)  No Response – 2 (3%)

4. Did you find the different learning activities interesting?
   Yes – 82 (96%)  No – 1 (1%)  No Response – 2 (3%)

5. Did the program provide you the variety of experiences you had hoped for?
   Yes - 73 (85%)  No – 9 (11%)  No Response – 3 (4%)

6. Please tick the activities which taught you something, and circle the one you enjoyed the most
   (Student's could tick more than one, but only circle one)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Yes</th>
<th>No</th>
<th>Not sure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquaculture/Horticulture</td>
<td>50</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Crocodylus Park</td>
<td>42</td>
<td>3</td>
<td>3.5</td>
</tr>
<tr>
<td>Field Trip Monsoon Fauna</td>
<td>43</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>Seminar – Climate change in the Top End</td>
<td>41</td>
<td>3</td>
<td>3.5</td>
</tr>
<tr>
<td>Exercise Sports Science</td>
<td>41</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Engineering</td>
<td>45</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Allied Health</td>
<td>43</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Seminar – How will we power the future?</td>
<td>63</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>49</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>Spatial Science</td>
<td>46</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Water Quality</td>
<td>38</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>Sustainable Harvest</td>
<td>30</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Seminar – Big rivers, Big crocs, Big problems</td>
<td>53</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

7. Do you feel this program should be offered at Charles Darwin University every year?
   Yes – 82 (97%)  No – 0%  Not sure – 3 (3%)

8. After Yr 12 are you considering study in the Science, Engineering and/or Technology field?
   Yes – 69 (81%)  No – 9 (11%)  Not sure – 7 (8%)

9. Would you like more information on the study options here at Charles Darwin University?
   Yes – 50 (59%)  No – 35 (41%)
Summary

Since the inception of the Science Experience in 2007 it has become more and more of value to schools, with overall awareness of the event increasing by 7%. For the first time the event reached our maximum target numbers, rising from 88 participants in 2009 to 100 participants in 2010, with a recorded increase of 12%. Indigenous participants have also increased by 4%.

Almost 40% of all students were interested in finding out more about Science, Engineering & Technology, with Science being the highest individual choice at 29%. 96% of all students agreed that the event gave them a better understanding of all the careers available to them, and found all activities interesting. 85% of participants said they experienced the variety of activities they had hoped for.

12% of all students enjoyed the Pharmacy, Water Quality & Monsoon Fauna activities the most, with Aquaculture, Horticulture and Engineering in second place with 9%. Participants believed all of the activities taught them something worthwhile and relevant, with the Seminar – How will we power the future? Recording the highest score of 74%, closely followed by the Seminar – Big rivers, Big crocs, Big problems at 62%. Aquaculture, Horticulture and Pharmacy were the sessions who were identified as teaching them the most with close scores of 59% and 58%. None of the activity scored less than 35%, so I am confident in saying this year’s event was the most successful.

97% of participants believe this event should be offered annually, with 69% of students considering future study at university. 59% of participants requested a total of 135 requests for more information on 21 different areas of study at the University. This is a huge increase from 31% over 12 areas of study in 2009. Engineering was the highest, being requested by 15 participants, closely followed by Science and Pharmacy with 14 requests.

<table>
<thead>
<tr>
<th>Student Request for more Information (135 Requests for more information on 21 areas of study)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquaculture 11</td>
</tr>
<tr>
<td>Water Quality 4</td>
</tr>
<tr>
<td>Allied Health 6</td>
</tr>
<tr>
<td>Engineering 15</td>
</tr>
<tr>
<td>Biodiversity 4</td>
</tr>
<tr>
<td>Chemistry 1</td>
</tr>
<tr>
<td>Defence Pilot 1</td>
</tr>
</tbody>
</table>

*All requested information was posted to the students via the address provided.

Prizes

All Students receive a CDU Science Experience T-Shirt, Science Experience Satchel, Pen and Program. A Birch Carroll & Coyle $8 Student Mondays voucher which entitles them to cheap movies every Monday for the next 12 months

- Exercise Sports Science Activity Session Prizes – Soccer Ball x 7
  M Rehmann
  A Holland
  B Johnson
  N West
  C Horton
  C DeFrancesco
  A Lee

- Spatial Science Activity Session Prizes – 25 CDU USB’s – SDVC Teaching & Learning

- Survey Prizes
  Engineering Student Mohamed donated 3 CDU Shirts that he designed
  4 x $25.00 Casuarina Gift Voucher
  3 X CDU USB’s – SDVC Teaching & Learning
  2 x Mini Soccer Balls
  7 x Sports Watches – SchoolsLink, Community Engagements
Student Group Leaders

<table>
<thead>
<tr>
<th>Name</th>
<th>Group</th>
<th>Color</th>
<th>Days</th>
<th>School/Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOHAMED Elgendi</td>
<td>Group Leader 1</td>
<td>GREEN</td>
<td>3</td>
<td>Darwin Middle School &amp; Sanderson Middle School</td>
</tr>
<tr>
<td>Jemma Spencer</td>
<td>Group Leader 2</td>
<td>GREEN</td>
<td>3</td>
<td>supervised the orange group on the 3rd day</td>
</tr>
<tr>
<td>Rachel Gerdes</td>
<td>Group Leader 3</td>
<td>GREEN</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Xavier Hoenner</td>
<td>Group Leader 1</td>
<td>BLUE</td>
<td>3</td>
<td>Taminmin High School &amp; Katherine High School</td>
</tr>
<tr>
<td>Siobhan Casey</td>
<td>Group Leader 2</td>
<td>BLUE</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Alice Leppitt</td>
<td>Group Leader 1</td>
<td>ORANGE</td>
<td>3</td>
<td>Kormilda College, Dripstone Middle School &amp; Marrara Christian School</td>
</tr>
<tr>
<td>Sarimah Buyong</td>
<td>Group Leader 2</td>
<td>ORANGE</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>John Bosco Odongo</td>
<td>Group Leader 1</td>
<td>YELLOW</td>
<td>3</td>
<td>Essington School &amp; St Johns College</td>
</tr>
<tr>
<td>Marie Jeanne Buscot</td>
<td>Group Leader 2</td>
<td>YELLOW</td>
<td>3</td>
<td></td>
</tr>
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Special thanks to all who supported the delivery of the 2010 event

<table>
<thead>
<tr>
<th>Name</th>
<th>Role</th>
</tr>
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<tbody>
<tr>
<td>Mr Michael Howard</td>
<td>Lab manager/Water Quality Activity</td>
</tr>
<tr>
<td>Mrs Marissa Briston</td>
<td>Reception - Corporate Communications – School Segments</td>
</tr>
<tr>
<td>Ms Chelsea Mulcahy</td>
<td>Reception Corporate Communications – School Segments</td>
</tr>
<tr>
<td>Mr Taytae Teerakaew</td>
<td>Reception Corporate Communications – School Segments</td>
</tr>
<tr>
<td>Mr Matt Gray</td>
<td>Technical Support/Student Bus Driver</td>
</tr>
<tr>
<td>Mr Quan Tien</td>
<td>Technical Support</td>
</tr>
<tr>
<td>Ms Elizabeth Duguid</td>
<td>Technical Support/Water Quality Activity</td>
</tr>
<tr>
<td>Ms Nikeeta Robinson</td>
<td>Technical Support</td>
</tr>
<tr>
<td>Mr Liam Johnson</td>
<td>Exercise &amp; Sport Science</td>
</tr>
<tr>
<td>Ms Kathy Kellam</td>
<td>Aquaculture/Horticulture</td>
</tr>
<tr>
<td>Mr Daniel Kimberley</td>
<td>Aquaculture/Horticulture</td>
</tr>
<tr>
<td>Crocodylus Park</td>
<td>Professor Graham Webb &amp; Giovanna Webb</td>
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<tr>
<td>Prof Bob Wasson</td>
<td>Seminar: Climate Change</td>
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<tr>
<td>Mr Simon Hobbs</td>
<td>Seminar: Renewable Energy</td>
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<tr>
<td>Assoc Prof Pascale Dettwiller</td>
<td>Pharmacy</td>
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<td>Dr Greg Heins</td>
<td>Engineering</td>
</tr>
<tr>
<td>Assoc Prof Michael Douglas</td>
<td>Seminar: TRacK presentation</td>
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<tr>
<td>Dr Keith McGuinness</td>
<td>Biodiversity</td>
</tr>
<tr>
<td>Mr Julian Gorman</td>
<td>Sustainable Wildlife</td>
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<tr>
<td>Mr Joe Jeffrey</td>
<td>Sustainable Wildlife - Indigenous Ranger</td>
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<tr>
<td>Ms Beryl Smith</td>
<td>Sustainable Wildlife - Indigenous Ranger</td>
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<tr>
<td>Dr Richard Noske</td>
<td>Mangroves</td>
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<tr>
<td>Ms Emma Francis</td>
<td>Mangroves</td>
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<tr>
<td>Mohd Azlan Jayasilan A Gulam Azad</td>
<td>Mangroves</td>
</tr>
<tr>
<td>Dr Karen Joyce</td>
<td>Spatial Science</td>
</tr>
<tr>
<td>Dr Stefan Maier</td>
<td>Spatial Science</td>
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<tr>
<td>Mr Ron Ninnis</td>
<td>Technical Support Mangroves</td>
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Charles Darwin University Relevant Courses

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Advanced Diploma of Engineering (2010)</td>
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<tr>
<td>Bachelor of Engineering (2010)</td>
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<tr>
<td>Bachelor of Engineering (Co-Op) (2010)</td>
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<tr>
<td>Bachelor of Engineering (Robotics Or Computer Systems) (2010)</td>
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<tr>
<td>Bachelor of Engineering/Bachelor of Applied Science (2010)</td>
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<tr>
<td>Bachelor of Engineering/Bachelor of Arts (2010)</td>
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<tr>
<td>Bachelor of Engineering/Bachelor of Commerce (2010)</td>
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<tr>
<td>Bachelor of Engineering/Bachelor of Information Technology (2010)</td>
</tr>
</tbody>
</table>
Diploma of Engineering (2010)
Diploma of Network Engineering (2010)
Master of Engineering (2010)
Master of Engineering (2010)
Master of Engineering Management (2010)
Master of Engineering Management/Master of Business Administration (2010)
Certificate I in Engineering (2010)
Certificate II in Engineering (2010)
Certificate IV in Engineering (2010)

Courses Available to New/Existing Students

Higher Education

Bachelor of Applied Science (2010)
Bachelor of Applied Science/Bachelor of Arts (2010)
Bachelor of Applied Science/Bachelor of Commerce (2010)
Bachelor of Arts (2010)
Bachelor of Arts (Honours) (2010)
Bachelor of Arts/Bachelor of Creative Arts And Industries (2010)
Bachelor of Arts/Bachelor of Laws (2010)
Bachelor of Behavioural Science (2010)
Bachelor of Behavioural Science (Honours) (2010)
Bachelor of Biomedical Science (2010)
Bachelor of Business in Tourism Management/Bachelor of Environmental Science (Environmental Management (2010)
Bachelor of Engineering/Bachelor of Applied Science (2010)
Bachelor of Engineering/Bachelor of Arts (2010)
Bachelor of Environmental Science (Environmental Forensics) (2010)
Bachelor of Environmental Science (Environmental Management) (2010)
Bachelor of Exercise And Sport Science (2010)
Bachelor of Humanitarian And Community Studies (2010)
Bachelor of Nursing/Bachelor of Applied Science (2010)
Bachelor of Pharmacy (2010)
Bachelor of Science (Honours) (2010)
Bachelor of Teaching And Learning/Bachelor of Applied Science (2010)
Bachelor of Teaching And Learning/Bachelor of Arts (2010)
Doctor of Philosophy (EHS) (2010)
Doctor of Philosophy (IAS) (2010)
Doctor of Philosophy (LBA) (2010)
Doctorate in Tropical Environmental Management (2010)
Master By Research (EHS) (2010)
Master By Research (IAS) (2010)
Master By Research (LBA) (2010)
Master of Public Health (2010)
Master of Tropical Environmental Management (2010)
Certificate I in Conservation And Land Management (2010)
Certificate II in Conservation And Land Management (2010)
Certificate III in Conservation And Land Management (2010)
Certificate IV in Conservation And Land Management (2010)
Diploma of Conservation And Land Management (2010)

Courses Available to New/Existing Students

Higher Education

### Higher Education

- Bachelor of Business in Tourism Management/Bachelor of Environmental Science (Environmental Management) (2010)
- Bachelor of Environmental Science (Environmental Forensics) (2010)
- Bachelor of Environmental Science (Environmental Management) (2010)
- Doctor of Philosophy (Ias) (2010)
- Doctorate in Tropical Environmental Management (2010)
- Master By Research (IAS) (2010)
- Master of Tropical Environmental Management (2010)
- Certificate I in Conservation And Land Management (2010)
- Certificate II in Conservation And Land Management (2010)
- Certificate IV in Conservation And Land Management (2010)
- Diploma of Conservation And Land Management (2010)

### VET

- Bachelor of Exercise And Sport Science (2010)
- Bachelor of Nursing (Pre-Registration) (2010)
- Bachelor of Nursing/Bachelor of Applied Science (2010)
- Bachelor of Pharmacy (2010)
- Doctor of Health (2010)
- Doctor of Philosophy (IAS) (2010)
- Doctorate in Public Health (2010)
- Graduate Certificate in Nursing (2010)
- Graduate Diploma in Child And Family Health (2010)
- Graduate Diploma in Health (2010)
- Graduate Diploma in Midwifery (2010)
- Graduate Diploma in Nursing (2010)
- Graduate Diploma in Public Health (2010)
- Master By Research (IAS) (2010)
- Master of Health Practice (Nurse Practitioner) (2010)
- Master of Nursing (2010)
- Master of Public Health (2010)
- Healthy Bodies (2010)
- Introduction To Health Industry (2010)
- Medication Administration For Enrolled Nurses (2010)

### Higher Education

- Certificate I in Conservation And Land Management (2010)
- Certificate II in Conservation And Land Management (2010)
- Certificate IV in Conservation And Land Management (2010)

### VET

- Bachelor of Applied Science/Bachelor of Arts (2010)
- Bachelor of Arts (2010)
- Bachelor of Arts (Honours) (2010)
- Bachelor of Arts/Bachelor of Creative Arts And Industries (2010)
- Bachelor of Arts/Bachelor of Laws (2010)
- Bachelor of Behavioural Science (2010)
- Bachelor of Behavioural Science (Honours) (2010)
| Bachelor of Engineering/Bachelor of Arts (2010) |
| Bachelor of Humanitarian And Community Studies (2010) |
| Bachelor of Teaching And Learning/Bachelor of Arts (2010) |
| Doctor of Philosophy (LBA) (2010) |
| Master By Research (LBA) (2010) |

Courses Available to New/Existing Students

- Higher Education
- VET

- Bachelor of Creative Arts And Industries (New Media Design)/Bachelor of Information Technology (2010)
- Bachelor of Engineering/Bachelor of Information Technology (2010)
- Bachelor of Information Technology (2010)
- Bachelor of Information Technology/Bachelor of Commerce (2010)
- Diploma of Network Engineering (2010)
- Master of Information Technology Management (2010)
- Master of Information Technology Management/Master of Business Administration (2010)
- Certificate II in Information Technology (2010)
- Certificate IV in Information Technology (General) (2010)
- Pathways (2010)
- Safer Internet Usage (2010)
- Web Design And Development (2010)

Courses Available to New/Existing Students

- Higher Education
- VET

- Bachelor of Children's Services (2010)
- Bachelor of Social Work (2010)

Report compiled by: Trisha Mellow, SchoolsLink, Community & Access, Office of the Senior Deputy Vice-Chancellor's Community Engagement, CDU. Rachel Gerdes T&L & Jemma Spencer PMD assisted with Student Evaluations and Student Request for more Information.