





Review of Graduate Certificate of Ridge to Reef Sustainable Development

2019

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Introduction

James Cook University's Graduate Certificate of Ridge to Reef Sustainable Development is a bespoke teaching and learning program developed in support of the Pacific Community's Ridge-to-Reef (R2R) management program. The R2R program aims to maintain and enhance the value and resilience of Pacific Island countries ecosystem goods and services through integrated approaches to land, water, forest, biodiversity and coastal resource engagement that contribute to poverty reduction, sustainable livelihoods and climate resilience.

The Ridge to Reef Sustainable Development teaching program is built on James Cook University's world-leading profile in teaching and research focussed specifically on the tropical world. The Ridge to Reef teaching program focusses on up-skilling local practitioners via an integrated series of high quality learning units delivered by James Cook University's expert teaching staff.

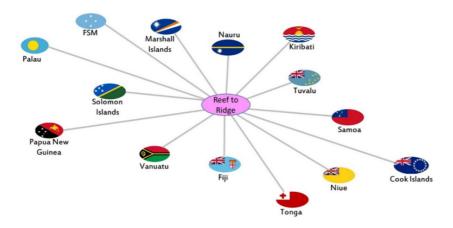
Ridge to Reef is an initiative of Global Environment Facility. The Global Environment Facility unites 183 countries in partnership with international institutions, civil society organizations, and the private sector to address global environmental issues while supporting national sustainable development initiatives.

Global Environment Facility identified the information and skills required by the Pacific Island communities and developed, in conjunction with James Cook University a Postgraduate program to meet these needs.

Graduate Certificate of Ridge to Reef Sustainable Development

There are four subjects in the Graduate Certificate of Ridge to Reef Sustainable Development [EV5961 Ecosystem Dynamics, EV5960 Project Management R2R, EV5963 Ridge to Reef tools and EV5962 Governance R2R]. See Subjects descriptions below.

This Program commenced in second semester 2017 with EV5961 Ecosystem Dynamics, with students completing subsequent subjects in the following semesters, with the final subject [EV5962 Governance R2R] being completed in first semester, 2019.



Graduate Certificate of Ridge to Reef Sustainable Development

2017 Semeste<u>r 2</u>

EV5961 Ecosystem Dynamics R2R

Ecosystem Dynamics will focus on developing the integrated whole-of-catchment understanding that is integral to Ridge to Reef management. Ecosystem Dynamics relates to interlinked networks of interactions among organisms and between organisms and their environment that facilitate the proper functioning of ecosystems. Thus gaining a clear understanding of Ecosystems Dynamics is pivotal to successful Ridge to Reef management. Ecosystem Dynamics will develop an authoritative understanding of the ecology of the key components of terrestrial and marine ecosystems, including forests, rivers, mangroves, seagrass beds and coral reefs. In addition, it will develop an understanding of the connectivity and interactions between these ecosystems, and the functioning of the key ecosystem-supporting processes. This subject will draw on understanding specific to the Pacific Islands as well as advances in understanding from across the tropical world. Although the unit will be broadly applicable across Pacific Island Countries (PICs), differences in ecosystem dynamics between different PICs, and how the consequences of these differences play out, will be illustrated using examples from particular PICs

2018 Semester 1

EV5960 Project Management R2R

EV5960 Increasingly governments, NGO's, companies, and Not-For-Profit (NFP) organisations face changing environments driven by the demand for greater quality, shorter product/programme lifecycles, and faster response to customer/client demands, and to maintain a competitive advantage through continuous innovation to maintain competitive costs at operating levels that provide customer satisfaction. Global companies such as General Electric, Boeing, Samsung, BHP, Thiess, Microsoft, Oracle, Sony, and Qantas have all successfully developed business models to achieve innovation. In today's global marketplace competitive advantage ensures being faster to market, efficient production capacities, coupled with cost consciousness to remain customer-focused. These companies share a common characteristic; they have embraced project management as a strategic tool.

2018 Semester 2

EV5963 Ridge to reef tools

The R2R Tools subject introduces a range of tools used in facilitate understanding of Ecosystem Dynamics, to enable good Governance and to link Ecosystems Dynamics and good Governance into integrated R2R outcomes. R2R tools are used in a broad range of situations such as ecosystem management, marine spatial planning, socio-cultural assessments, climate change adaptation and protected area management and planning. The tools covered in the unit will range from geographic information systems (GIS), through community engagement focused ground-truthing approaches such as Walking The Landscape, to tools for socio-cultural assessments. The unit will also cover the use of tools in combination because the integrated approach of R2R management often requires suites of tools to be used in concert. Different tools will be investigated in the context of their usefulness in particular situations, allowing students to gain an understanding of the tools that are likely to be fit-for-purpose for particular siland scenarios

2019 Semester 1

EV5962 Governance R2R

The Governance subject will develop a comprehensive understanding of the key formal and informal features of natural resource governance from the local scale through to national and supranational scales. The unit will commence by developing a conceptual understanding of governance (as distinct from government) and situating this understanding in the context of natural resource management. It will then provide a comprehensive understanding of community-based resource management and common-property resources by using an intensive case study approach. The unit will then consider the operation of national governance, focusing on the interplay of state and non-state actors in the design and implementation of environmental policy. Intensive case-study analysis will again situate this understanding and illuminate the critical role of informal as well as formal institutions of governance. Finally, the unit will consider the emergence of supra-national governance, including the role of international treaties and conventions and the emergence of supra-national institutions designed to attend to the management of ecosystems at large scales. Critical analysis of case studies will again be accompanying this

Students success in the Graduate Certificate of Ridge to Reef Sustainable Development Program

Thirty six students have successfully completed all four subjects in the Graduate Certificate of R2R Sustainable development Program. These students are to be congratulated on their success given the challenges that some students face i.e. poor internet access. In general, students did very well in the four subjects, with more than 28% of students receiving grades of Distinction or High Distinction in each of the subject, aligning with quality university standards.

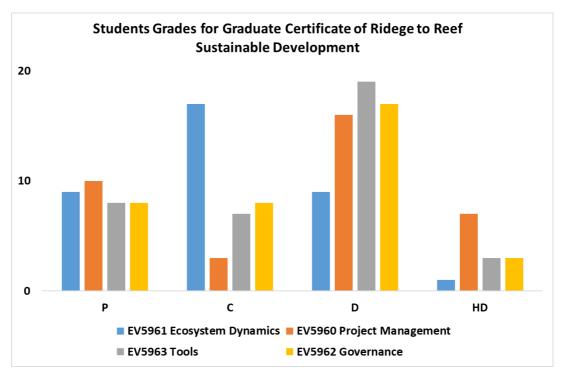


Figure 1: Student's grades for all four subjects in the Graduate Certificate of Ridge to Reef Sustainable Development. P = Pass, C = Credit, D = Distinction, HD = High distinction

Graduation Ceremony

Students that successfully completed all four subjects in the Graduate Certificate of R2R Sustainable Development will be attending an Attendance Graduation Ceremony at the Tanoa Hotel, in Nadi, Fiji, 2019. The Ceremony will be on Wednesday, 31st July, 2019 at 3.00pm.

The Graduate Diploma of R2R Sustainable Development

These successful students will then commence the first subject in the Graduate Diploma of R2R Sustainable Development. The first subject is EV5965 Best Practice Management Tools – R2R will include a five-day intensive face-to-face component, in Nadi, Fiji (following the graduation).

All students must complete the first two subjects [EV5965 Best Practice Management Tools R2R and EV5964 Integrated Management of R2R Ecosystems]. Then students will have the option to choose either the Management stream or the Technical stream.

Graduate Diploma of Ridge to Reef Sustainable Development

EV5965: Best Practice Management Tools – Ridge to Reef 2019. Semester 2

This subject builds knowledge of tools, frameworks and methods that are at the cutting edge of successful integrated R2R sustainable development, the reasons why they are used, how they should be employed and how their importance can be communicated to endusers. The specific tools and frameworks discussed will focus principally on tried and tested approaches to facilitating management that are currently the basis for best practice management in PICTs. However, newly developed tools, such as the Wetland Prioritisation Decision Support System for Great Barrier Reef Catchments, that have potential application to specific PICTs contexts will also be investigated, together with how the tools could be adapted and operationalised for use in PICTs R2R management, where and in what situations they would be appropriate, and the constraints on their application. The BPMTs and their application will be discussed in contrasting PICT situations, to cover the range of variation in island geography, society and issues, consequently providing students with a functional toolbox and the ability to select the tools that are fit for their particular situation and purpose

EV5964: Integrated Management of Ridge to Reef Ecosystems 2020. Semester 1

The 'Integrated Management of Ridge to Reef Ecosystems' module will be fully customised to optimise use of PIC case studies and pilot projects to identify, assess and prioritise problems and potential solutions. It will cover key biophysical processes of coastal and terrestrial ecosystems, and how they are influenced by human activities (particularly timber harvesting, agriculture, urban settlements and fishing) in the context of PIC land/sea tenure, governance and institutions. The key learning outcomes will be (i) a practical understanding of the connectivity between terrestrial, freshwater and marine ecosystems, (ii) the ability to understand and identifying parts of this system that are sensitive and/or vulnerable to environmental changes. Equipped with these understandings, and a suite of practical competencies, graduates will be well-placed to understand the drivers, consequences and best solutions to address a range of key environmental issues. This subject will enhance the capacity of the graduates to develop and implement innovative and locally relevant approaches, measures and tools to integrate land, forest, water and coastal management to enhance food and income security and health, and reduce risk of disasters

Management stream

Technical stream

EV5966: 03. Public Policy Tools 2020, Semester 2

This subject provides an introduction to key concepts and models associated with public policy analysis and management. It will critique traditional policymaking approaches, which are heavily based on "rational decision-making models" or variants of them, and explore other models such as institutionalist, feminist and interpretivist models, which focus on the nature and structure of government and political society. Emphasis will be on applying conceptual knowledge to understanding the complexity of public policy processes, the impact of public policies on society, and how practitioners can avoid policy failures and disasters and choose and implement policies that work. The subject is divided into three parts. The first covers goals, such as equity, efficiency, welfare and liberty. The second explores problems, such as symbols, causes, numbers and decisions. The third examines solutions, such as inducements, rules, facts and rights. The subject will explore these concepts in the context of a framework for sound thinking about policy success and failure (e.g. good politics but bad policy) and the wide terrain between these two extremes in terms of process, programs and politics.

EV5967: 03. Policy Development & Strategic Planning R2R 2021, Semester 1

Policy Development & Strategic Planning focuses on developing a working knowledge of the concepts and processes of environmental and regional planning and design. Human perceptions of environments, community participation and the process of designing/planning for an acceptable balance between human use and physical environment are part of this focus. The unit will cover policy formulation, policy analysis, policy implementation, policy evaluation, the formulation of strategic plans, and the roles of different stakeholder groups. Policy formulation with be covered in its four fundamental phases - appraisal, dialogue, formulation and consolidation while consideration of strategic plan formulation will cover topics from stakeholder consultations to identification of key issues, gaps, opportunities and medium- and long-term outputs. Critical thinking and high-level independent judgement in undertaking various components of the planning process (e.g. planning objectives, environmental assessments, community involvement, report writing) will be emphasised, as will the ability to critically review, analyse and evaluate planning documents and to synthesise and report on them effectively to a variety of audiences.

EV5968: 03. Tools for Resource Assessment – Ridge to Reef 2020. Semester 2

The Tools for Resource Assessment unit will cover the theory and use of the resources assessment tools introduced in the R2R unit in the Postgraduate Certificate in considerably more detail, as well as introducing a variety of additional, specialised resource assessment tools. This unit has a deeper quantitative focus than the R2R Postgraduate Certificate unit, and will cover methods for the design, implementation and analysis of baseline assessments and monitoring surveys in marine and terrestrial ecosystems, GIS, remote sensing, habitat mapping, water quality surveys, and connectivity mapping. In addition, emphasis will be placed on linking resource assessment to monitoring and evaluation as intrinsically linked components. The potential and viability of using international tools and frameworks to handing local data streams and addressing locally relevant assessment needs will be assessed, and an understanding of how to make appropriate decisions about the appropriateness of particular tools will be developed

EV5969: 03. Protected Area Management – Ridge to Reef 2021, Semester 1

This subject is designed to introduce students to key theoretical and applied foundations of Protected Area Governance and Management. Students will be introduced to the history and concept of protected areas and will learn about the socio-economic and ecological dimensions that influence the context of protected areas. The subject will introduce key elements of governance and management of protected areas, including current planning and management tools such as monitoring, conservation planning, reserve design, and mechanisms for generating social and financial support for protected areas. The subject will emphasise international dimensions of protected areas including global networks and governance, roles of indigenous people and local communities, and challenges for protected areas in developing countries. Through participating in this subject, students will have the opportunity to engage in an interactive, varied and interdisciplinary learning experience through lectures, tutorials and discussions with a variety of researchers active in the field of Protected Area Management

Future Opportunities and Directions

The current Ridge to Reef teaching program has been successful when judged either by student successes or by the large number of requests for additional students to join the program. However, moving from the Graduate Certificate to the Graduate Diploma provides the opportunity to reassess the details of the program to respond to changing needs, for instance in response to changed training needs to accommodate recommendations to mainstream ecosystem goods and services. A number of models are possible. From the JCU teaching point of view some change in the details of what is delivered is possible, as long as this aligns with program needs, and as long as the integrity of the overall program isn't affected. On the other hand, it would be possible to deliver additional complimentary modules, for instance as hands-on in-field activities that mixed teaching and learning with the delivery of actual Ridge to Reef activities.

In line with the many request for additional students (both from within and outside the Ridge to Reef project) to join the Ridge to Reef subjects, JCU is exploring options to fill this need, and is moving to develop a set of similar but extended set of offering for delivery into the region in the near future.