

## Form 1

PROGRAM NAME:	Natural	ŀ	Resource
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Management Program	GROUP:

(A) **No. 10** 

Protocol Route Slip	Name	Title	Initial	Date
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## **PROAC Form 1**

NMC MISSION STATEMENT	CNMI Constitution. Amendment No. 38, Section 2: "The mission of Northern Marianas College shall be to provide the best quality and meaningful		
	postsecondary and adult education opportunities for the purpose of improving the quality of life for the individual and for the Commonwealth as a whole. The		
	College shall be responsible for providing education in the areas of adult and continuing education, postsecondary and adult vocational education and		
	professional development for the people of the Commonwealth."		
PROGRAM MISSION STATEMENT	The NRM program mission is to support local initiatives and priorities developed within the islands toward conserving and protecting its precious		
(Column 1)	natural resources, and to promote the efficient use of human, institutional, and financial resources to meet local and regional goals and objectives. A		
	key element within the program is effective capacity building and development at both the institutional and community level, reducing the reliance		
	on external expertise and increasing the ability and capacity of local institutions and individuals to address the ever increasing environmental		
	challenges faced by the islands. The NRM program curriculum encourages and follows a regional approach to solving problems and developing		
	strategies through working in cooperation with the local agencies, organizations, and individuals toward producing effective management of the		
	region's coral reefs, fisheries, marine biotechnology, and ocean resources.		

INTENDED PROGRAM/SERVICE	MEANS OF ASSESSMENT AND	SUMMARY OF DATA COLLECTED	USE OF RESULTS
OUTCOMES	SUCCESS CRITERIA		
(Column 2)	(Column 3)	(Column 4)	Since (Column 5)
1. Students will be able to demonstrate an	All NRM students are required to take NR 150	The NR 150 Intro to NRM, NR 153 Environmental	The seven courses under review, namely, NR
understanding of the methodology of	Intro to Natural Resource Management & NR	Conservation, NR 253 Species and Ecosystem	150, NR 153, and the capstone courses, namely,
system integration and best practices of	153 Environmental Conservation, two of the	Management, NR 255 Conservation Politics and	NR 253, NR 255, NR 290, NR 295 and NR 298
conservation and sustainable	beginning program's courses requirements. These	Economics, and NR 290 Special Topics have been	have been successful with respect to their SLOs
management and development	courses continue the study of hazardous waste	taught for the past two to five semesters inclusive	requirements being met and their relatively

and pollution management; and the human impact on the use, degradation, , restoration, and the long term conservation & sustainable management of resources that include land, sea, water, and air. Students are assessed on their comprehension of the methodology of system integration and best practices of conservation management.

The modes of assessments are the Pre- and Post Modular Evaluation (written test and exams), Research/Case Reports, and students oral presentations of their research projects:

1) Seventy (70) percent of students will effectively understand, demonstrate, and value the human impact on the use, degradation, restoration, and conservation, as well as long term sustainable management of land, water, and air.

of (Fall 2010 & Spring 2011 & Fall 2011; and Spring 2012 & Fall,2012; and Spring 2013)

NR 150: Introduction to Natural Resources
Management. This course was initially offered as
one of the two beginning program courses for the
NRM degree program in Fall 2010. Of the 15
students who enrolled, 14 students or 92 percent
earned the completion rate. In the Fall 2011, 16
students enrolled with 12 students passing or 75
percent completion rates. This course was offered
again during the Spring 2012 with 19 students
enrolled, and 17 students passing or 89 percent
completion rates. In Fall 2012, \_\_ students enrolled
and \_\_\_students passed with completion rate of
\_\_percent.

In the Spring 2013, 17 students enrolled with an average grade of 82 percent. 11 students were above average and only 6 students were below average or 100 percent passing rates.

NR 153: Environmental Conservation-This course was also initially offered as one of the two program courses during the NRM renewal period in Fall 2010. Of the ten students who enrolled, 90 percent earned the completion rate.

Of the nine students who attended the Spring 2011 Semester, the average grade for all course requirements is 90 percent. Only three students were below average and one student got incomplete due to some emergency family problems. The student finally completed the course the following term thus the completion rate was 100 percent. The completion rate has been consistent until Spring 2013 where out of 11 students, only 3 students passed thus a very low 27 percent passing or completion rate.

Overall, except for last Spring term(2013) for NR 153, all the past terms exceeded the desired 70 % success rate for the two beginning program courses.

NR 253 Species and Ecosystem Management was offered twice during Spring and Fall 2011.with five and four (with graduating) students enrolled for

higher rate of completion rates compared to the same courses undertaken during the previous years i.e. before the renewal of the NRM Program (2010).

Overall, the completion rates for NR 150 and NR 153 are significantly successful for the students to continue at the next level of advanced courses, particularly in the capstone courses.

Generally, for the the capstone courses, the students both orally and in writing have presented their required output in curricular developments and in effectively conducting research/survey investigations on their emphasis areas of interest and in their on-the-job training or exposures and experiences with various environmental institutions in CNMI or incampus; and in-off campus/ island i.e. outside of the CNMI. It is worthy to note here that the NRM students have had the opportunities to be exposed and thus experienced various practicum and/or on the job training in different environmental network institutions not only here in CNMI but also in San Diego, Hawaii, Costa Rica, South Carolina, Guam and hopefully in the Philippines in the near future.

Thus, by looking forward the NRM Program is hoping to achieve a targeted 15-20 graduate students by Spring to Fall 2013 and a cohort of 80-100 NRM students (for the 2-3 year revival period).

These evaluative results and observations were used as part of a comprehensive, integrative and demonstrative aspects of student proficiency in the NRM sciences and the environmental field of studies.

## **Recommendations:**

On the basis of this initial Academic Program Review of the NRM program courses, the NRMP supports and reiterates the previous

each term respectively Both terms have 100 percent cycles recommendations and stresses the completion rates. For the succeeding terms, the following five-point agenda for considerations: completion rate is consistent to be 100 percent. 1) Coordinatorship and teaching faculty---Recruit qualified personnel (at least one FTE position for NR and/or NR 255 Conservation Politics and Economics was **Environmental Science) and stabilize** also offered twice each year during Spring & Fall, the listings of adjunct faculty members 2011 and Spring &Fall 2012, with thirteen students given the experienced fast turnover; for 2011 and ten (with graduating) students for and further enhance/facilitate the 2012, respectively. All four terms have 100 percent recruitment of the adjunct and/or team completion rates.. teaching staff in view of the observed In the Spring 2013, 10 students enrolled with an inadequacy, if not lack of NRM or over average grade of 77 percent. All students got more all course teaching staff; Specifically, than the average grade. However, one outstanding appoint one more faculty for NRM ( student has to withdraw in view of his heart that is long time needed) under Science/NRM Division ailment. All but this one, have 100 percent passing rate. Coffers and/or Allocated Funding---Allocate substantive permanent budget apart from the uncertain grants/funding for personnel and operational items given the observed inadequacy, if not lack of stable funding for such items; Collaboration---Continously strengthen and sustain the intra(NMC) and interagency capacity-building in view of the apparently ineffective, if not lack of continuing collaborative/networking 2.Students will be able to demonstrate an All NRM students are required to take NR 253 The NR 255 Conservation Politics and Economics. efforts both locally and internationally; Species and Ecosystem Management and NR had been team taught (by faculty from DEQ & **Cooperative Participant/Student** understanding of the roles of politics and 255 Conservation Politics and Economics, two of NMC) only for the last two semesters (Spring and **Recruitment Campaign---A more focus** economic development on natural management .and ecosystem management. the advanced program's course requirements Fall 2011). The other terms had been taught by and vigorous marketing, recruitment, NRM Program Coordinator, in view of the other and admission campaign for both the adjunct instructors leaving the CNMI. . Assessment measures include the following: the academic degree and nondegree/certificate programs for NRM, Pre- and Post Evaluation (including quizzes and exams); research/case reports and other Of the four students (one graduating), who attended using the students ENRO Club and during the Spring Semester 2011, the average grade performance indicators such as other concerned institutions; project(research/field investigations, for the course is 91 percent. And of the nine student **Curricular and Materials Development** who attended (three graduating) during the Fall presentations and recitations. -Validating, Updating and/or Modifying Semester 2011, the average grade for the course is existing NRM curricula and introducing 93 percent. Of the ten students who attended during Seventy (70) percent of students will effectively new NRM Courses along with checklistings understand, demonstrate, and value biodiversity the Spring 2012, three were graduating; and all and procurement/ordering of new edition passed the course or 100 percent completion rate. textbooks/materials that match the NRMand ecosystem management or care for the role of government interventions, policies and economics The rest of the succeeding terms also had 100 course related offerings of other in bio conservation issues. percent completion rates. Colleges/Universities in the Region and in the USA; the production of localized

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	Overall, NR 255 course exceeded the desired 70	textbooks and related materials/modules for
	percent success rate for all the terms.	NRM and related courses should also be
		introduced; and articulation agreements
		with existing and other Colleges/Universities
3.Students will be able to demonstrate an	NR 290 Special Topics had been taught for the	should be explored for our career
understanding of the CNMI, federal and	past four terms: Fall 2010 and Spring 2012 and Fall	advancing students.
international environmental laws and regulatory	2012 and Spring 2013 Semesters, with a total of 25	
enforcement procedures. They will also be able to	students and with the average grade for all course	
demonstrate special topics on their emphasis	requirement of 95 percent.	
areas including their experiences and exposures		
as career professionals in selected environmental	NR 295 NRM Seminar was taught last Fall Term	
institutions	2010, with eight students and a completion rates of	
	100 percent. The following Terms have completion	
	rates of 100 percent.	
	However, during the Spring term 2013 with 10	
	students had 70 percent passing rate but with one	
	withdrawal for medical reasons.	
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	NR 298 NRM internship was offered starting last	
	Fall Term 2011 and thereafter every Fall Term	
	2012 with students and a completion rate of 100	
	percent.	
	Overall, the three courses exceeded the desired 70	
	percent success rate for the course.	