



#### JAMES COOK UNIVERSITY

By the authority of the Council we certify that

### Santiago Jr. Torda Pena

has on 25 October 2018 been admitted to the degree of

Doctor of Philosophy

Given under the seal of the James Cook University

Chancellor

CERTIFIED PHOTOCOPY OF THE ORIGINA

TERESITA L. QUINANULA

Vice-Chancellor and President



# Australian Higher Education \* Graduation Statement

The Australian Higher **Education Graduation** Statement is provided by Australian higher education institutions to graduating students on completion of the requirements for a particular higher education award. It provides a description of the nature, level, context and status of studies that were pursued by the individual named. Its purpose is to assist in both national and international recognition of Australian qualifications and to promote international

mobility and professional

recognition of graduates.

#### The Graduate

Name

Santiago Jr. Torda Pena

Student Number

11646440

#### The Award

Name of Award DOCTOR OF PHILOSOPHY

Detail

Admission to the Doctor of Philosophy requires a bachelors degree graduate honours (first class or second class honours division A) that includes a major project component, a masters degree by research degree, or equivalent evidence of research capacity. The Doctor of Philosophy is a (post)graduate research course that normally takes the equivalent of at least 3 years of full-time study to complete. Candidates undertake supervised research training in an area of specialisation, and complete a major research thesis, normally written in English, that is independently assessed, by at least two examiners external to the university, on the basis of its contribution to knowledge.

#### Awarding Institution

James Cook University is a research intensive education institution established by an Act of the Queensland Parliament in 1970 and is listed as an Australian University on the Tertiary Education Quality and Standards Agency's National Register of Higher Education Providers. The University has a reputation for high quality education and world-class research, with a focus on providing leadership and innovation for the tropics. The University's Commonwealth Register of Institutions and Courses for Overseas Students number is 00117J. Further information about James Cook University can be found at www.jcu.edu.au

Certification

Date: 25th October 2018

Jodie Midson

Director, Student Services

CERTIFIED PHOTOCOPY OF THE ORIGINA.

PERESITA L. QUINANO



As a graduate of James Cook University

#### SANTIAGO JR. TORDA PENA

was on 25 October 2018 accorded perpetual membership of the

## JAMES COOK UNIVERSITY ALUMNI ASSOCIATION

ERTIFIED PHOTOCOPY OF THE ORISINA.

TERESITA L. QUINANGLA

Vice-Chancellor and President





COOK UNIVERSITY

Townsville Campus
Townsville QLD 4811
AUSTRALIA
Telephone: (07) 4781 4111

Cairns Campus PO Box 6811 Cairns QLD 4870 AUSTRALIA Telephone: (07) 4042 1111

#### STATEMENT OF ACADEMIC RECORD

Santia	igo Jr, Pena					DATE 07-Dec-	2007
STUDENT NUMBER 11646440 Page 1 of 1							
Award	s						
06-Dec-	2007 MASTER OF TRO	OPICAL VETERINARY SC	IENCE Conferred				
Course	Summary						
Year	Course Title	77.7	SINDER TO	GPA	Con	npleted	
2004	Graduate Diploma of Res			5.38	tina materialis	24	
2005 2006	Master of Tropical Veteri Master of Tropical Veteri			N/A N/A	1727 48 0 41 8 8 1	Time Time	
	The second second	7,000,00					
79007		Graduate Di	oloma of Resea	arch Method	ls		
Year	Subject	Title			Credit Points	Grade	
2004	PP5005	Special Topics in Physiolog	y		3	D	
	TV5020	Animal Production			3	C	
	TV5311	Research and Dissertation			12	C	
	TV5320	Dissertation			3	c	
	ZL5003	Biometrics			3	HD	
COURS	E GPA: 5.38		To	tal Credit Points	24		
75203 Master of Tropical Veterinary Science							
Year	Subject	Title			Load	Grade	
2005	MR7226	Masters Research Thesis (T	oni I Veterino S		Part Time		
2000	MR7226	Masters Research Thesis (T	The transfer that the second	7 fb . th . f = 1 7 fb 2	Full Time	N/A N/A	
2006	MR7226	Masters Research Thesis (T			Full Time	N/A	
	MR7226	Masters Research Thesis (T			Full Time	N/A	
	Thesis Title:	Boar Spermatozoa Develop					

End of Record - 11646440



#### VISAYAS STATE UNIVERSITY

(Formerly Visayas State College of Agriculture and Leyte State University)

Main Campus Visca, Baybay City, Leyte 6521-A Philippines TeleFax: +63 53 335 2601 e-mail: opvisca@mozcom.com website: www.lsu-visca.edu.ph

Reg. Tel. No.: +63 53 335 2644; +63 53 563 7428

#### OFFICIAL TRANSCRIPT OF RECORDS

#### PERSONAL DATA

Student Number

: Peña, Santiago Jr. Torda

Student Number

: 97000962

Date of Birth

: April 28, 1980

Place of Birth Sex

: Mlang, N. Cotabato

Religion

: Male

Citizenship

: Baptist
: Filipino

ACR No.

AYAS STAT

Parent/Spouse

: Santiago Peña, Sr.

Address

: Wainright St., Mlang, N. Cotabato

Tel. No

ITY VISAYAS STATE (AND INIVERSITY VISAYAS ST AS STATE LIMIVERSITY V

Guardian

INVERSITY VISANAS STATE UNIVERSITY VISANAS STA

Address Tel. No.

E UNIVERSITY VISAYAS ST BAYAS STATE UNIVERSITY

#### PRELIMINARY EDUCATION

Elementary

: Mlang Central Pilot School

Mlang, N. Cotabato

**High School** 

: Mlang National High School

Mlang, N. Cotabato

THE PROPERTY OF THE PROPERTY O

Year: 1993

Year: 1997

**Entrance Credential** 

Form 138

- Audit (No credit)

Mlang National High School

Mlang, N. Cotabato

#### **GRADING SYSTEM**

RATING	EQUIVALENT	QUALITY
1.00 1.25 1.50 1.75 2.00	97-100 94-96 91-93 88-90 85-87	Excellent Highly Outstanding Outstanding Very Good Good
2.25 2.50 2.75 3.00 5.00	82-84 79-81 76-78 75 Below 75	Very Satisfactory Satisfactory Fair Passing Failure
U - Unsati	factory sfactory	Inc - Incomplete Drp - Dropped

One collegiate unit of credit is one hour lecture or recitation each week or a total of 18 hours in a semester. Three hours of laboratory work, drafting, or a shop work each week or a total of 54 hours a semester are regarded as equivalent also to one unit of credit.

The semestral average grade of a student is computed by multiplying the number of units assigned to a course by the grade earned and the product divided by the total units earned for the semester.

Not Valid
Without Seal
Page \_ f of 4 pages

LINDA N. MARISCAL
Lyniversity Registrar



#### VISAYAS STATE UNIVERSITY

(Formerly Visayas State College of Agriculture and Leyte State University)

Main Campus Visca, Baybay City, Leyte 6521-A Philippines TeleFax: +63 53 335 2601 e-mail: opvisca@mozcom.com website: www.lsu-visca.edu.ph

Reg. Tel. No.: +63 53 335 2644; +63 53 563 7428

#### OFFICIAL TRANSCRIPT OF RECORDS

Name : Peña, Santiago Jr. Torda Student No.: 97000962

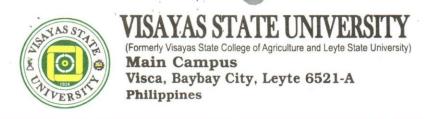
Course : Doctor of Veterinary Medicine (DVM)

Course No	Descriptive Title	Grade		Credits
VISAYAS STATE UNIVERSI INIVERSITY VISAYAS STATE S STATE UNIVERSITY VISA	First Semester, SY 1997-1998	VERSITY VISAYAS STATE STATE UNIVERSITY VISA VISAYAS STATE UNIVER		ERSITY VISAYAS STA TATE UNIVERSITY VIS
BIO 11	THE PROPERTY OF THE PROPERTY O	1.00		4.0
CHEM 11	GENERAL CHEMISTRY I	1.00		4.0
ENGL 11	COMMUNICATION SKILLS I	1.50		3.0
MATH 11	COLLEGE ALGEBRA	1.50		3.0
PSYC 11	GENERAL PSYCHOLOGY	1.25		3.0
SCSC 13	- Contract Dibility	1.00		3.0
PHYED11	PHYSICAL FITNESS AND GYMNASTICS	1.25		2.0
ROTC 11	The second secon	1.75		1.5
INIVERSITY VISAYAS STATE ERTATE LINIVERSITY VISA	Second Semester, SY 1997-1998			
BOT 21	GENERAL BOTANY	1.25		3.0
ENGL 12	COMMUNICATION SKILLS II	1.50		3.0
MATH 22	PLANE TRIGONOMETRY	2.25		3.0
PHILO12	CONTEMPORARY PHILOSOPHICAL THOUGHTS	1.25		3.0
SCSC 14	PHIL.SOC.PROBS., LAND REFORM & TAXN	1.00		3.0
SOCI 11	GENERAL SOCIOLOGY	1.50		3.0
Z00 21	GENERAL ZOOLOGY	1.00		3.0
PHYED12	REC.GAMES, RHYTMIC ACT. AND DANCE	1.00		2.0
ROTC 12	FIRST YEAR BASIC COURSE	2.00		1.5
	First Semester, SY 1998-1999			TATE UNIVERSITY VIS
AGRO 21	FUNDAMENTALS OF CROP PRODUCTION	1.50		3.0
AS 21	PRINCIPLES OF ANIMAL SCIENCE	1.50		3.0
CHEM 21	GENERAL CHEMISTRY II	1.00		3.0
ENGL 15	ADVANCED GRAMMAR AND COMPOSITION	1.50		3.0
FIL 25	SINING NG PAKIKIPAGTALASTASAN AND AND AND AND AND AND AND AND AND A	1.00		3.0
HUM 11	INTRODUCTION TO HUMANITIES	1.50		3.0
SPCH 11	SPEECH COMMUNICATION	1.25		3.0
PHYED13	TEAM SPORTS	1.25		2.0
ROTC 21	STATE OF COUNTY OF THE COUNTY	2.00		1.5
	Second Semester, SY 1998-1999			BAYAS STATE UNIVER VERSITY VISAYAS STA
AGEX132	PRIN., METHODS & STRATEGIES IN EXTN.	Inc.	1.25	3.0
AS 22	PRIN. OF ANIMAL PRODUCTION	1.25		3.0
CHEM 31	GENERAL BIOCHEMISTRY	1.25		3.0
ECON 21	FARM MANAGEMENT	1.00		3.0
PHYS 11	GENERAL PHYSICS	2.00		4.0
SS 22	FUNDAMENTALS OF SOIL SCIENCE	1.25		3.0
STAT 21	ELEMENTARY STATISTICS	1.75		3.0
PHYED14	INDIVIDUAL/DUAL SPORTS	2.00		2.0
ROTC 22	SECOND YEAR BASIC COURSE	3.00		1.5
	First Semester, SY 1999-2000	TATE UNIVERSITY VISAY		RSITY VIEAYAS STATE
AH 101	EMBRYOLOGY	2.75		3.0
AH 103	VETERINARY ANATOMY I	2.00		3.0
AH 107	ANIMAL PHYSIOLOGY I	2.00		3.0
AH 121	VETERINARY MICROBIOLOGY	2.50		3.0

< continued on next page >

Not Valid
Without Scal
Page 2 of 4 pages

LINDA N. MARISCAL University Registrar



TeleFax: +63 53 335 2601 e-mail: opvisca@mozcom.com website: www.lsu-visca.edu.ph

Reg. Tel. No.: +63 53 335 2644; +63 53 563 7428

#### OFFICIAL TRANSCRIPT OF RECORDS

: Pena, Santiago Jr. Torda

Student No.: 97000962

Course : Doctor of Veterinary Medicine (DVM)

LEYTE STATE UNIVERSITY (LSU), Visca, Baybay, Leyte

Course No		Descriptive Title	Grade		Credits
E UNIVERS	ITY VISAYAS STATE	TY VISAYAS ETATE UNIVERSITY <u>VITAYAS ETATE LINVERSITY VISAYAS ETATE UNIVERSITY VISAYAS STATE UNI</u>	SITY VISAYAS STATE		YAS STATE UNIVERSO
TY VISAYA	S STATE UNIVERSIT	Second Semester, SY 2001-2002			
MV	141	REPRODUCTION PHYSIOLOGY	1.25		4.0
VM	153	SURGERY II	2.25		3.0
VM	162	VETERINARY OBSTETRICS	2.25		3.0
VM	164	POULTRY AND SWINE MEDICINE	1.50		3.0
VM	166	RUMINANT AND EQUINE MEDICINE	1.50		4.0
VM	171	CLINICAL ORIENTATION I	1.75		2.0
VM	172	CLINICO-PATHOLOGICAL CONFERENCE	Inc.	2.25	1.0
TY VISAYA	S STATE UNIVERSIT	Summer 2002			TE UNIVERSITY VISAY YAS STATE UNIVERSIT
	173A	CLINICS I (INTERNSHIP)	Inc.	1.50	6.0
VM	200	UNDERGRADUATE THESIS	S	In P	rogress
E UNIVERS	S STATE UNIVERSITY VISAYAS STATE	First Semester, SY 2002-2003		UNIVERSITY VISA	YAS STATE UNIVERSIT RSITY VIBAYAS STATE
VM	127	SPECIAL PATHOLOGY	Inc.	3.00	2.0
VM	144	VETERINARY PHARMACOLOGY	1.50	YAS STATE UNIVE	4.0
VM	156	SURGERY III	2.75		3.0
VM	167	SMALL ANIMAL MEDICINE	3.00		4.0
VM	168	JURISPRUDENCE, ETHICS & ECONOMICS	2.25		2.0
VM	169	WILDLIFE AND FISH MEDICINE	Inc.	2.50	
VM	174	CLINICS II (INTERNSHIP)	Inc.	3.00	
VM	199	UNDERGRADUATE SEMINAR	2.50	NIL SITY VISA	1.0
VM	200	UNDERGRADUATE THESIS	S AYAS STATE	In pi	cogress
		Second Semester, SY 2002-2003	ATE MIVERSITY VISU SAY 3 STATE UNIVER	IGIT VI YAS STA	ogicss
VM	176	CLINICS III (FIELD EXPERIENCE)	1.75		14.0
VM	200	UNDERGRADUATE THESIS	1.75		6.0
THE	SIS:	FACTORS ASSOCIATED WITH THE FAILURE IN A	RTIFICIA	THE BRITY VISA	
		INSEMINATION OF CARACOWS IN BAYBAY, LEYTH	E: AN IIN	MATCHEL	CASE-
		CONTROL STUDY	T. UNIV PRINTY VISA	W S E OHIDE	RSITY VISAYAS STATE

CONTROL STUDY Graduated CUM LAUDE on March 31, 2003 with the degree of Doctor of Veterinary Medicine (DVM) as per LSU Board of Regents Resolution No.7, s. 2003 dated February 21, 2003.

WIT ENTRY BELOW THIS LINE IS NULL AND VOID

REMARKS : FOR EMPLOYMENT

DATE ISSUED:

OCT 2 4 2007

Not Valid Without Seal
Page 4 of 4 pages

LINDA N. MARISCAI University Registrar



(Formerly Visayas State College of Agriculture and Leyte State University)

**Main Campus** Visca, Baybay City, Leyte 6521-A **Philippines** 

TeleFax: +63 53 335 2601 e-mail: opvisca@mozcom.com website: www.lsu-visca.edu.ph

Reg. Tel. No.: +63 53 335 2644; +63 53 563 7428

#### OFFICIAL TRANSCRIPT OF RECORDS

: Peña, Santiago Jr. Torda Name

Student No.: 97000962

Course : Doctor of Veterinary Medicine (DVM)

LEYTE STATE UNIVERSITY (LSU), Visca, Baybay, Leyte						
Course No	Descriptive Title	Grade	Credits			
E UNIVERSITY MISAYAS STATI WAS STATE UNIVERSITY VISA	E UNIVERSITY VISAYAS STATE LINIVERSITY VISAYAS STATE UNIVERSITY VISAYAS STATE UNIVERSITY VISAYAS ST	ATE LIMITERS TO THE CAY BAYAS STATE UNIVERS	AS STATE UNIVERSITY VISAYAS STATE UNIVERSITY VISAYAS STATE UNIVERSITY VISAYAS			
AH 127	First Semester, SY 1999-2000					
AS 121		2.25	3.0			
BIO 22	POULTRY PRODUCTION & MANAGEMENT	1.25	3.0			
DIO 22	PRINCIPLES OF GENETICS	1.00	3.0			
AH 104	Second Semester, SY 1999-2000					
AH 126	VETERINARY ANATOMY II	1.75	4.0			
	VETERINARY MICRIOBIOLOGY II	2.50	3.0			
AH 128	VETERINARY HELMINTHOLOGY	2.75	3.0			
AS 112	SWINE PRODUCTION	1.00	3.0			
AS 151	BREEDING FARM ANIMALS	1.50	3.0			
PI 11	PHIL. HISTORY CONSTITUTION & RIZAL	1.25	3.0			
E UNIVERSITY VISAYAS STAT	Summer 2000					
AH 200A	FIELD PRACTICE	S	In Progress			
AYAS STATE UNIVERSITY VIS	First Semester, SY 2000-2001		BITY VISAYAS STATE UNIVERSITY VISAY, UNIVERSITY VISAYAS STATE UNIVERSIT			
AH 111	HISTOLOGY WE WERE STATE LANGERS OF THE LANGERS OF T	2.00	4.0			
AH 113	ANIMAL PHYSIOLOGY II	2.00	3.0			
AH 141	ELEMENTARY PHARMACOLOGY	1.25	3.0			
AH 200A	FIELD PRACTICE	S	In Progress			
AS 131	RUMINANT PRODUCTION	Inc.	1.25 3.0			
AS 141	FEEDS AND FEEDING	1.50	SITY VISAVAS STATE VALUE POST			
PHLT161	FOOD HYGIENCE AND PUBLIC HEALTH	1.50	3.0			
	Second Semester, SY 2000-2001	TATE INIVERSITY VISA	IN VI YAS STATE UNIVERSITY VISAY			
AH 125	GENERAL PATHOLOGY	2.00	4.0			
AH 134	INTRODUCTION TO VETERINARY MEDICINE	2.25	3.0			
AH 144	CLINICAL PATHOLOGY	1.25	AS STATE LAW 3 . O STATE			
AH 146	IMMUNOLOGY	2.00	2.0			
AH 162	ZOONOSES	1.50	2.0			
AS 136	EQUINE PRODUCTION	1.50	2.0			
AS 142	ANIMAL NUTRITION	1.00	3.0			
AH 199	UNDERGRADUATE SEMINAR	1.25	1.0			
AH 200A	FIELD PRACTICE	1.25	6.0			
	Graduated CUM LAUDE on April 7, 2001 with the degree of Bachelor of					

, 2001 with the degree of Bachelor of Animal Science (BAS) major in Animal Health as per ViSCA Board of Trustees Resolution No. 36, s. 2001 dated March 9, 2001. LEYTE STATE UNIVERSITY, (LSU) Visca, Baybay, Leyte First Semester, SY 2001-2002

		1113C Demester, 31 2001-2002			
VM	101	APPLIED ANATOMY	2.00		2.0
VM	121	VETERINARY VIROLOGY	1.50		3.0
VM	123	SYSTEMIC PATHOLOGY	2.50		3.0
VM	125	EPIDEMIOLOGY	2.50		3.0
VM	151	SURGERY I	Inc.	3.00	4.0
VM	155	RADIOLOGY	2.50	YAS STATE UNIVERS	3.0
MV	198	RESEARCH PLANNING & MANUSCRIPT PREP	Inc.	2.50	3.0
		AS STATE I BARGEOITY LOCATOR STATE I BARGEOITY HOUSE STATE I BARGEOITY HOUSE STATE I BARGEOITY HOUSE	TIIO!	2.00	5.0

< continued on next page >

Not Valid Without Seal Page 3 of 4 pages

LINDA N. MARISCAL University Registrar