### LEYTE STATE UNIVERSITY

Visca, Baybay, Leyte 6521 A Philippines



# EXCERPTS OF APPROVED MINUTES OF THE 9<sup>th</sup> LSU Board of Regents Meeting

21 February 2003 \* LNU, Tacloban City

Proposal to Offer the Bachelor of Science In Environmental Management (BSEM)

Board Resolution No. 6, s. 2003

Approving the Proposal to Offer Bachelor of Science in Environmental Management, as originally proposed to include a subject in Solid Waste Management.

Certified True and Correct

DANIEL M. TODTUD JR

Board Secretary

Board Action:

APPROVED

Date:

21 February 2003

Attachment:

G

Cc: OVPAA LSU-Alang-alang Campus Registrar

#### LEYTE STATE UNIVERSITY

Visca, Baybay, Leyte 6521

Philippines



Office of the President

21 February 2003

The Honorable Chairman and Members of the LSU Board of Regents

Ladies/Gentlemen:

I am hereby endorsing the "Proposal to Offer Bachelor of Science in Environmental Management (BSEM)" which has been deliberated and approved by the University Academic Council during its meting on 17 February 2003.

I am, therefore, recommending the same FOR APPROVAL by the Board of Regents.

Very truly yours,

PACIENCIA P. MILAN President

BOARD ACTION: \_\_\_\_\_

DATE

: 21 February 2003

## PROPOSAL TO OFFER THE BACHELOR OF SCIENCE IN ENVIRONMENTAL MANAGEMENT (BSEM)

#### I. RATIONALE

6 7

Article II Section 16 of the Philippine Constitution provides that "The State shall protect and advance the right of the people to a balanced and healthful ecology in accord with the rhythm and harmony of nature." It is within the context of this constitutional mandate that the Alangalang Campus of Leyte State University proposes to offer the Bachelor of Science in Environmental Management.

The proposal is also anchored on the commitment of the Philippine government to the UN Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992 and the priority agenda for action in the Philippine Agenda 21 (A National Agenda for Sustainable Development) which stipulates the integration of environment and sustainable development in the various curricula.

Further, the integration of the Alangalang Campus into the Leyte State University System and the subsequent resolution from the Board of Regents for it to serve as the College of Environmental and Agricultural Technology (CEAT) necessitates the design of new curricula in answer to its new mandate.

The growing interest in environmental management curriculum in Leyte is shown by the recent survey conducted by CEAT among the top thirty students of the graduating classes of seven (7) secondary schools in the immediate service area of the College. Results revealed that 80 out of 142 students or 56 percent signified interest to enroll in the proposed BS in Environmental Management (BSEM) curriculum at CEAT-LSU (Appendix 1).

The present alarming rate of degradation of the environment caused by urbanization, industrialization, rapid population growth, technology advancement, and other socio-economic factors need to be arrested. This requires professionals with solid background in various aspects of environmental management.

Graduates of the program will be equipped with the knowledge and skills necessary for the sustainable management of natural and man-made environments. They will be knowledgeable not only in the biophysical and socio-economic basis of environmental protection, but also in the legal and health dimensions. Thus, they will be competent to design and implement holistic approaches of environmental management which is the trend today.

#### II. OBJECTIVE

This program aims to produce professionals in the field of environmental management.

#### III. TARGET CLIENTELE

1. High School graduates.

2. Graduates of other degrees.

1	IV. EMPLOYMENT OPPORTUNITIES
2	1. Researchers
4	2. Teachers
5	3. Environmental technicians
6	Development workers and planners
7	5. Environmental Impact Analysis preparers
8	6. Land use planners
9	o. Zana des planiers
10	
11	V. GRADUATE PROFILE
12	
13	A. Cognitive
14	
15	<ol> <li>Acquire basic knowledge on the principles and applications in</li> </ol>
16	environmental management.
17	<ol><li>Analyze and evaluate problems and situations in forest, agricultural,</li></ol>
18	urban, freshwater, and coastal environments.
19	<ol> <li>Integrate knowledge on sustainable utilization of environmental</li> </ol>
20	resources to satisfy human needs.
21	
22	B. Affective
23	t I to and problems
24	Enhance awareness of environmental systems and problems.    Compare the problem   C
25	2. Instill social responsibility in maintaining a healthy living
26	environment.
27	3. Value the preservation of ecosystems for future generations.
28	
29	C. Psychomotor
30	1. Apply ecological theories and principles for environmental protection
31	and conservation.
32	Develop and implement strategies in managing environmental
33	problems.
34 35	3. Formulate and conduct research methodologies for environmental
36	management
37	4. Demonstrate sustainable utilization of environmental resources.

Term	Course	Descriptive Title	Но	urs	Units	Pre-
	No.		Lec	Lab		requisites
FIRST Y						
1 <sup>st</sup>	Bio 11	General Biology	3	3	4	
Sem	Chem 11	General Chemistry I	3	3	4	
	Engl 11	Communication Skills I	3	0	3	
	Math 11	College Algebra	3	0	3	
	Psyc 11	General Psychology	3	0	3	
	SoSc 13	Socio-Economic Systems	3	0	3	
	PhyEd 11	Physical Fitness & Gymnastics	2	0	(2)	
	NSTP 11				(3)	
		Total units			20	
2nd	Bot 21	General Botany	2	3	3	
Sem	Engl 12	Communication Skills II	3	0	3	Engl 11
	Math 22	Plane Trigonometry	3	0	3	Math 11
	Fil 11	Sining ng Pakikipagtalastasan at	3	0	3	watii i i
		Retorika	J	Ü	J	
	SoSc 14	Phil. Social Problems, Land Reform &	3	0	3	
		Taxation				
	Soci 11	General Sociology	3	0	3	
	Zoo 21	General Zoology	2	3	3	
		Recreational Games, Rhythmic	2	0	(2)	PhyEd 11
	T HYLU 12	Activities & Dance	-	U	(2)	riiyLu i i
	NSTP 12	Activities & Barroc			(3.0)	NSTP 12
	11011 12	Total units			21	11011 12
SECON	D YEAR	Total units				
1 <sup>st</sup>	Fil 12	Panitikang Filipino	3	0	3	
Sem	Chem 21	General Chemistry II	2	3	3	Chem 11
Cem	Engl 15	Advanced Grammar & Composition		0	3	Onem 11
	Ecol 21	Fundamentals of Ecology	3 2 3	3	3	
		Introduction to Humanities	2	0	3	Engl 12
			2	3	3	Engl 12
	Bio 22	Principles of Genetics				14-45-40
	Phys 11	General Physics	3	3	4	Math 12
	PhyEd 13	Team Sports	2	0	(2)	
OI	F-11: 111	Total units	2	2	22	F104
2nd	Envi 111	Principles of Environmental	2	3	3	Ecol 21
Sem	M: 00	Management	_	_	•	
	Micr 22	General Microbiology	2	3	3	
	Engl 21	Introduction to Literature	3	0	3	
	Stat 21	Elementary Statistics	2	3	3	
	Phys 21	College Physics	2	3	3	
	Philo 12	Contemporary Philosophical Thoughts	3	0	3	
	SS 22	Fundamentals of Soil Science	2	3	3	Chem 11
	PhyEd 14	Ind. & Dual Sports	2	0	(2)	
		Total units			21	
THIRD						
	SoSc 15	Phil. History, Govt. & Constitution	3	0	3	
1 <sup>st</sup>	Chem 31	General Biochemistry	2	3	3	
Sem	Stat 130	Statistical Methods	2	3	3	Stat 21
	CS 21	Introduction to Computers	2	3	3	
	Spch 11	Speech Communication	3	0	3	Engl 12
	Envi 113	Agro-Ecosystem Management	2	3	3	Envi 111
	Elective		2	3	3	Envi 111
		Total units			21	

2 <sup>nd</sup> Sem	SoSc 16	1.76				
Sem	0000 10	Life and Works of Rizal	3	0	3	
	Envi 112	Aquatic Resource Management	2	3	3	Envi 111
	Envi 114	Environmental Geomorphology	2	3	3	SS 22
	Envi 116	Environmental Chemistry	2	3	3	Envi 111
	Envi 118	Watershed Management	2	3	3	Envi 111
	Elective	9	2	3	3	Envi 111
	Envi 198	Research Planning & Manuscript	3	0	3	Engl 12
		Preparation	Ŭ		Ü	Liigi 12
		Total unit	S		21	
FOURT	TH YEAR					16
Sem	Envi 121	Geographic Information System	2	3	3	CS 21
	Envi 123	Natural Resource Economics	2	3	3	Envi111
	Envi 125	Introduction to Environmental Laws	3	0	3	Envi 111
	Envi 127	Environmental Health	3	0	3	Envi 111
	Envi 129	Land Use Policy & Planning	2	3	3	SS 22
	Envi 200	Undergraduate Thesis	1	0	2	
	21111 200	Tota		U	17	Envi 198
2 <sup>nd</sup>					4 20	
Sem	Envi 124	Environmental Impact Assessment	2	3	3	
	Envi 199	Undergraduate Seminar	1	0	1	Envi 198
	Envi 200	Undergraduate Thesis	4	0	4	
		Tota	l :-		8	
		Total Units			151	
FIRST '	VEAD	1 <sup>st</sup> Semester				
riksi	ICAK	2 <sup>nd</sup> Semester			20	
SECON	ID YEAR				21	
SECON	ID TEAR	1 <sup>st</sup> Semester			22	
TUDD	VEAD	2 <sup>nd</sup> Semester			21	
THIRD	YEAR	1 <sup>st</sup> Semester			21	
		2 <sup>nd</sup> Semester			21	
FOURT	LLVEAD	1 St C				
FOURT	H YEAR	1 <sup>st</sup> Semester			17	
FOURT	H YEAR	2 <sup>nd</sup> Semester			8	
FOURT	H YEAR	1 <sup>st</sup> Semester 2 <sup>nd</sup> Semester TOTAL				
V. COI Engl 11 Engl12 Spch 1 Fil 11 Fil 12 Hum 11	A. Ge 1. La 1 Comm Comm 1 Speed Sining Panitik	2 <sup>nd</sup> Semester TOTAL		3 3 3 3 3 3	8	3 3 3 3 3 3 21
Engl 11 Engl12 Spch 1 Fil 11 Fil 12 Hum 12	A. Gel 1. La 1. Comm Comm 1. Speed Sining Panitil 1. Introdu 2. Conte	ALYSIS  meral Education  nguage, Speech & Humanities  nunication Skills II  th Communication  ng Pakikipagtalastasan at Retorika  kang Filipino  uction to Humanities  mporary Philosophical Thoughts  Sub-Total  hematics, Natural Sciences & IT		3 3 3 3 3 3	8 151 0 0 0 0 0 0	3 3 3 3 3 21
Engl 11 Engl12 Spch 1 Fil 11 Hum 11 Philo 12	A. Ge 1. La 1. Comm Comm Comm Speed Sining Panitil Introdu Conte	ALYSIS  meral Education  nguage, Speech & Humanities  nunication Skills II  th Communication  ng Pakikipagtalastasan at Retorika kang Filipino  uction to Humanities mporary Philosophical Thoughts Sub-Total  hematics, Natural Sciences & IT  e Algebra		3 3 3 3 3 3	8 151 0 0 0 0 0 0	3 3 3 3 3 21
Engl 11 Engl12 Spch 1 Fil 12 Hum 11 Philo 12	A. Ger 1. La 1. Comm Comm 1. Speed Sining Panitik 1. Introdu 2. Contex 1. Colleg 2. Plane	ALYSIS  meral Education  nguage, Speech & Humanities  nunication Skills II  th Communication  ng Pakikipagtalastasan at Retorika kang Filipino  uction to Humanities  mporary Philosophical Thoughts  Sub-Total  hematics, Natural Sciences & IT  e Algebra  Trigonometry		3 3 3 3 3 3	8 151 0 0 0 0 0 0	3 3 3 3 3 21
Engl 11 Engl 12 Spch 1 Fil 12 Hum 17 Philo 12 Math 17 Math 22	A. Ge 1. La 1. Comm Comm 1. Speed Sining Panitil 1. Introdu 2. Conte 1. Colleg 2. Plane 1. Gener	ALYSIS  meral Education  nguage, Speech & Humanities  nunication Skills II  th Communication  ng Pakikipagtalastasan at Retorika  kang Filipino  uction to Humanities  mporary Philosophical Thoughts  Sub-Total  hematics, Natural Sciences & IT  e Algebra  Trigonometry al Physics		3 3 3 3 3 3 3 3	8 151 0 0 0 0 0 0 0	3 3 3 3 3 21
V. COVENIENDE 11 12 Philo 12 Phys 1: Chem 1	A. Ge 1. La 1. Comm Comm 1. Speed Sining Panitil 1. Introdu 2. Conte	ALYSIS  meral Education  nguage, Speech & Humanities  nunication Skills II  th Communication  ng Pakikipagtalastasan at Retorika  kang Filipino  uction to Humanities  mporary Philosophical Thoughts  Sub-Total  hematics, Natural Sciences & IT  e Algebra  Trigonometry al Physics al Chemistry I		3 3 3 3 3 3	8 151 0 0 0 0 0 0	3 3 3 3 3 21
	A. Ge 1. La 1. Comm Comm 1. Speed Sining Panitil 1. Introdu 2. Conte	ALYSIS  meral Education  nguage, Speech & Humanities  nunication Skills II  th Communication  ng Pakikipagtalastasan at Retorika  kang Filipino  uction to Humanities  mporary Philosophical Thoughts  Sub-Total  hematics, Natural Sciences & IT  e Algebra  Trigonometry al Physics		3 3 3 3 3 3 3 3	8 151 0 0 0 0 0 0 0	3 3 3 3 3 21

2 3 4

	3. Social Sciences			
Soci 11	General Sociology	3	0	3
Psyc 11	General Psychology	3	0	3
SoSc 13	Socio-Economic Systems	3	0	3
SoSc 14	Phil Social Problems, Land Reform & Taxation	3	0	3
	Sub-Total			12
	4. Mandated Courses			
SoSc 15	Phil History, Gov't. & Constitution	3	0	3
SoSc 16	Life & Works of Rizal	3	0	3
	Sub-Total			6
				W-64
	B. Fundamental Courses			
Engl 15	Advanced Grammar & Composition	.3	0	3
Engl 21	Introduction to Literature	3	0	3
Chem 21	General Chemistry II	2	3	3
Chem 31	General Biochemistry	2	3	3
Phys 21	College Physics		3	3
Bio 22	Principles of Genetics	2 2	3	3
	(4) 그렇게 하면 하는 것이 하는 것이 되었다. 그렇게 하는 사람들은 사람들이 되었다. 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그	2		
Bot 21	General Botany		3	3
Zoo 21	General Zoology	2	3	3
Micr 22	General Microbiology	2	3	3
SS 22	Fundamentals of Soil Science	2	3	3
Ecol 21	Fundamentals of Ecology	2	3	3
CS 21	Introduction to Computer Science	2	3	3
Stat 21	Elementary Statistics	2	3	3
Stat 130	Statistical Methods	2	3	3
	Sub-Total			42
	B. Major Courses			
Envi 111	Principles of Environmental Management	2	3	3
Envi 112	Aquatic Resources Management	2	3	3
Envi 113	Agro-Ecosystem Management	2	3	3
Envi 114	Environmental Geomorphology	2	3	3
Envi 116	Environmental Chemistry	2	3	3
Envi 118	Watershed Management	2	3	3
Envi 123	Natural Resource Economics	2	3	3
Envi 121	Geographic Information System	2	3	3
Envi 125	Introduction to Environmental Laws	3	0	3
Envi 124	Environmental Impact Assessment	2	3	3
Envi 127	Environmental Health	3	0	3
Envi 129	Land Use Policy & Planning	2	3	3
Envi 198	Research Planning & Manuscript Preparation	3	0	3
Envi 199	Undergraduate Seminar	1	0	1
Envi 200	Undergraduate Thesis	6	0	6
L11V1 200	Sub-Total		· ·	46
	Oub-Total			40
	C. Major Elective Courses (select 2)			
Envi 115	Coastal and Marine Resource Management	2	3	3
Envi 117	Wetlands Management and Conservation	2	3	3
Envi 119	Soil Pollution and Remediation	2	3	3
Envi 122	Socio-ecology	2	3	3
LIIVI IZZ	Sub-Total	-	J	6
	Jub-10tal			0

SUMMAR	Y OF COURSES			
	al Education			01
	e, Speech & Humanities			21
- Mathema	atics, Natural Sciences & IT			18
- Social S	ciences			12
- Mandate	d Courses			6
B. Funda	mental Courses			42
C. Major	Courses, Environmental			
Managem				46
	Elective Courses			6
	TOTAL CREDIT UNITS			151
Non-cred	it required courses			
PhyEd 11 Physical F	Fitness & Gymnastics	2	0	(2)
그렇게 보고 있는데 그렇게 하는데 그렇게 살아 먹는데 얼마나 하는데 그렇게 되었다. 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그	nal Games, Rhythmic Activities & Dance	2	0	(2)
PhyEd 13 Team Spo		2	0	(2)
	/ Dual Sports	2	0	(2)
NSTP 11	, 300, 670.0	3	•0	(3.0)
NSTP 12		3	0	(3.0)
11011-12				

2		
3	VII. INSTITUTION	N OF NEW COURSES
4		A) Majau Caurage
5		A) Major Courses
6	O Number	: Envi 111
7	Course Number	: Principles of Environmental Management
8	Course Title	: Nature and management of forest, agricultural, wetland,
9	Course Description	urban and marine environments.
11	Prerequisite	: Ecol 21 (Fundamentals of Ecology)
12	Credit Units	: 3 units (5 hrs/week; 2 lec, 3 lab)
13	Rationale	: The course shall provide the students with basic
14		knowledge on the different ecosystems as a foundation for
15		the major courses.
16		
17	Course Number	: Envi 112
18	Course Title	: Aquatic Resources Management
19	Course Description	: Principles and approaches of aquatic resources
20		management.
21	Prerequisite	: Envi 111 (Principles of Environmental Management)
22	Credit Units	: 3 units (5 hrs/week; 2 lec, 3 lab)
23	Rationale	: Students of the course shall acquire theory and practical
24		skills in the sustainable management of fresh water and marine resources.
25		manne resources.
26 27	Course Number	: Envi 113
28	Course Title	: Agro-Ecosystem Management
29	Course Description	
30	Coardo Boodription	and livestock production.
31	Prerequisite	: Envi 111 (Principles of Environmental Management)
32	Credit Units	: 3 units (5 hrs/week; 2 lec, 3 lab)

1	Rationale	: The course is designed to provide the students with a
2		knowledge of sustainable crop and livestock production
3		systems.
4		
5	Course Number	: Envi 114
6	Course Title	: Environmental Geomorphology
7	Course Description	: Landscape history and development and its relation to
8		environmental issues.
9	Prerequisite	: SS 22 (Fundamentals of Soil Science)
10	Credit Units	: 3 units (3 hours/week;2 lec, 3 lab)
11	Rationale	: The students shall learn about the different forces involved
12		in landscape formation which is of utmost importance to
13		the understanding of environmental problems.
14		
15	Course Number	: Envi 116
16	Course Title	: Environmental Chemistry
17	Course Description	: Theory and principles on the chemical processes in the
18		environment.
19	Prerequisite	: Envi 111 (Principles of Environmental Management)
20	Credit Units	: 3 units (5 hrs/week; 2 lec, 3 lab)
21	Rationale	: The course shall provide the students with basic
22		knowledge on the chemical reactions and interactions of
23		pollutants in the environment.
24		
25	Course Number	: Envi118
26	Course Title	: Watershed Management
27	Course Description	: Regulation, conservation and administration of watershed
28		resources for environmental and human welfare;
29		sustainable production of forest products, and control of
30		soil erosion, streamflow and floods.
31	Prerequisite	: Envi 111 (Principles of Environmental Management)
32	Credit Units	: 3 units (3 hrs/week; 2 lec, 3 lab)
33	Rationale	: The course shall provide the students with theoretical
34		knowledge and practical experience in the sustainable
35		management of watersheds.
36		
37	Course Number	: Envi 121
38	Course Title	: Geographic Information System
39	Course Description	: : : : : : : : : : : : : : : : : : :
40	Prerequisite	: CS 21(Introduction to Computers)
41	Credit Units	: 3 units (3 hrs/week; 2 lec. 3 lab)
42	Rationale	: This course shall provide the students with knowledge and
43		skills on the use of state of the art GIS technology. They
44		shall also learn how to use this powerful modern tool in the
46		evaluation and management of environmental problems.
47	Course Number	: Envi 123
48	Course Title	: Natural Resource Economics
49		: Economic evaluation on the use and allocation of
50	Course Description	environmental resources.
51	Prerequisite	: Envi 111 (Principles of Environmental Management)
52	Credit Units	: 3 units (3 hrs/week; 3 lec)
53	Rationale	:The course shall equip the students with principles and
54	i cano, raio	decision-making tools in evaluating natural resource use
55		for sustainable development.
56		
57	Course Number	: Envi 124
58	Course Title	: Environmental Impact Assessment
59	Course Description	가격 사람들은 하나 가장 사람들이 얼마나 있는데 아이들이 얼마나 어느
60		processes and causes of degradation of the environment.

1	Pre-requisite	: Senior Standing
2	Credit Units	: 3 units (5 hrs/week; 2 lec, 3 lab)
3	Rationale	: Students of this course shall acquire knowledge and
4	rtationalo	practical skills in the analysis of the environmental effects
5		of various human interventions in the ecosystem.
		or various numair interventions in the ecosystem.
6	Oarras Niverkan	. F! 40F
7	Course Number	: Envi 125
8	Course Title	: Introduction to Environmental Laws
9	Course Description	: Basic knowledge on fundamental laws and concerns in the
10		Philippines as well as related international laws.
11	Prerequisite	: Envi 111(Principles of Environmental Management)
12	Credit Units	: 3 units (3 hrs/week; 3 lec)
13	Rationale	: This course shall enhance students' awareness of man's
14		legal responsibility in promoting a balanced ecosystem.
15		regar responsibility in promoting a balaneed edecystem.
16	Course Number	: Envi127
	Course Title	: Environmental Health
17		
18	Course Description	: Impact of pollution on human health; prevention and control
19		of pollution-related diseases.
20	Prerequisite	: Envi 116 (Environmental Chemistry)
21	Credit Units	: 3 units (3 hrs/week; 3 lec)
22	Rationale	: The course is designed to provide the students with basic
23		knowledge of the connection between environmental
24		pollution and human health.
25		polition and numeri nearin.
	Cauraa Numbar	: Envi 129
26	Course Number	
27	Course Title	: Land Use Policy and Planning
28	Course Description	: Rural and urban land utilization: principles, methods and
29		processes.
30	Prerequisite	: SS22 (Fundamentals of Soil Science)
31	Credit Units	: 3 units (3 hrs/week; 2 lec, 3 lab)
32	Rationale	: In this course, the students shall be taught how to design
33		comprehensive land use plans for the sustainable use of
34		agricultural and non-agricultural lands. Students shall also
35		learn the process of strategic land use planning.
36		Todan and produce of charles give land accorptanting.
37	Course Number	: Envi 198
	Course Title	: Research Planning & Manuscript Preparation
38		다시 어느는 생물에 있어요? 그렇게 하는데 이 사람이 있는데 이 아는데 아니는데 아니는데 아니는데 아니는데 아니는데 아니는데 아니는데
39	Pre-requisite	: Engl 12 (Communication Skills II)
40	Credit Units	: 3 units (3 hrs/week; 3 lec)
41	Rationale :	Students shall acquire the necessary knowledge and skills
42		in planning and conducting a research study, and in
43		interpreting and writing the results of their study.
44		
45	Course Number	: Envi 199
46	Course Title	: Undergraduate Seminar
47	Prerequisite	: Envi 198 (Research Planning & Manuscript Preparation)
48	Credit Units	: 1 unit
49	Rationale	: The course shall teach students how to prepare for an oral
50	rationale	presentation and shall provide them with the skills and
		그게 되는 것이다. 그렇게 하면
51		techniques in presenting a paper.
52		F
53	Course Number	: Envi 200
54	Course Title	: Undergraduate Thesis
55	Prerequisite	: Senior Standing
56	Credit Units	: 6 units
57	Rationale	: This course shall allow the students to apply the
58		knowledge and skills they learned in the major courses to
59		conduct an independent research work in environmental
60		management.

1 2		B) Major elective courses (select 2)
3	Course Number	: Envi 115
4	Course Title	: Coastal and Marine Resource Management
5	Course Description	: Principles and approaches of coastal and marine resource
6	A STATE OF THE STA	management
7	Prerequisite	: Envi 111 (Principles of Environmental Management)
8	Credit Units	: 3 units (5 hrs/week; 2 lec, 3 lab)
9	Rationale	: Students of the course shall acquire theory and practical
10		skills in the sustainable management of coastal and marine
11		resources.
12	O	
13	Course Number	: Envi 117
14 15	Course Title	: Soil Pollution and Remediation
16	Course Description	: Soil as central component of terrestrial ecosystems;
17	Prerequisite	pollution and remediation of soils in various environments.
18	Credit Units	: SS 22 (Fundamentals of Soil Science) : 3 units (5 hrs/week; 2 lec, 3 lab)
19	Rationale	: Students in this course shall understand the functions of
20	rianomaro	the soil in various ecosystems. They shall also learn how to
21		evaluate and alleviate soil pollution in agricultural, industrial
22		and urban areas.
23		
24	Course Number	: Envi 118
25	Course Title	: Socio-ecology
26	Course Description	: Human history, human impact on the environment and
27		urbanization.
28	Prerequisite	: Envi 111 (Principles of Environmental Management)
29 30	Credit Units	: 3 units (3 hrs/week; 3 lec)
30		
	Rationale	: Students shall understand the history of human civilization,
31	Rationale	: Students shall understand the history of human civilization, especially of Southeast Asia and man's increasing impact
31 32	Rationale	: Students shall understand the history of human civilization, especially of Southeast Asia and man's increasing impact on the environment. Social factors leading to
31 32 33	Rationale	: Students shall understand the history of human civilization, especially of Southeast Asia and man's increasing impact on the environment. Social factors leading to overpopulation and urbanization will be identified and
31 32	Rationale	: Students shall understand the history of human civilization, especially of Southeast Asia and man's increasing impact on the environment. Social factors leading to overpopulation and urbanization will be identified and discussed in the context of the relationship of development
31 32 33 34	Rationale	: Students shall understand the history of human civilization, especially of Southeast Asia and man's increasing impact on the environment. Social factors leading to overpopulation and urbanization will be identified and
31 32 33 34 35	Course Number	: Students shall understand the history of human civilization, especially of Southeast Asia and man's increasing impact on the environment. Social factors leading to overpopulation and urbanization will be identified and discussed in the context of the relationship of development
31 32 33 34 35 36	Course Number Course Title	<ul> <li>Students shall understand the history of human civilization, especially of Southeast Asia and man's increasing impact on the environment. Social factors leading to overpopulation and urbanization will be identified and discussed in the context of the relationship of development and environmental degradation.</li> <li>Envi 119</li> <li>Wetlands Management and Conservation</li> </ul>
31 32 33 34 35 36 37 38 39	Course Number Course Title	<ul> <li>Students shall understand the history of human civilization, especially of Southeast Asia and man's increasing impact on the environment. Social factors leading to overpopulation and urbanization will be identified and discussed in the context of the relationship of development and environmental degradation.</li> <li>Envi 119</li> <li>Wetlands Management and Conservation</li> <li>Characteristics, ecological functions, management and</li> </ul>
31 32 33 34 35 36 37 38 39 40	Course Number Course Title Course Description	<ul> <li>Students shall understand the history of human civilization, especially of Southeast Asia and man's increasing impact on the environment. Social factors leading to overpopulation and urbanization will be identified and discussed in the context of the relationship of development and environmental degradation.</li> <li>Envi 119</li> <li>Wetlands Management and Conservation</li> <li>Characteristics, ecological functions, management and conservation of wetlands.</li> </ul>
31 32 33 34 35 36 37 38 39 40 41	Course Number Course Title Course Description Prerequisite	<ul> <li>Students shall understand the history of human civilization, especially of Southeast Asia and man's increasing impact on the environment. Social factors leading to overpopulation and urbanization will be identified and discussed in the context of the relationship of development and environmental degradation.</li> <li>Envi 119</li> <li>Wetlands Management and Conservation</li> <li>Characteristics, ecological functions, management and conservation of wetlands.</li> <li>Envi 111(Principles of Environmental Management)</li> </ul>
31 32 33 34 35 36 37 38 39 40 41 42	Course Number Course Title Course Description Prerequisite Credit Units	<ul> <li>Students shall understand the history of human civilization, especially of Southeast Asia and man's increasing impact on the environment. Social factors leading to overpopulation and urbanization will be identified and discussed in the context of the relationship of development and environmental degradation.</li> <li>Envi 119</li> <li>Wetlands Management and Conservation</li> <li>Characteristics, ecological functions, management and conservation of wetlands.</li> <li>Envi 111(Principles of Environmental Management)</li> <li>3 units (3 hrs/week; 2 lec, 3 lab)</li> </ul>
31 32 33 34 35 36 37 38 39 40 41 42 43	Course Number Course Title Course Description Prerequisite	<ul> <li>Students shall understand the history of human civilization, especially of Southeast Asia and man's increasing impact on the environment. Social factors leading to overpopulation and urbanization will be identified and discussed in the context of the relationship of development and environmental degradation.</li> <li>Envi 119</li> <li>Wetlands Management and Conservation</li> <li>Characteristics, ecological functions, management and conservation of wetlands.</li> <li>Envi 111(Principles of Environmental Management)</li> <li>3 units (3 hrs/week; 2 lec, 3 lab)</li> <li>The course shall enable the students to appreciate the</li> </ul>
31 32 33 34 35 36 37 38 39 40 41 42 43 44	Course Number Course Title Course Description Prerequisite Credit Units	<ul> <li>Students shall understand the history of human civilization, especially of Southeast Asia and man's increasing impact on the environment. Social factors leading to overpopulation and urbanization will be identified and discussed in the context of the relationship of development and environmental degradation.</li> <li>Envi 119</li> <li>Wetlands Management and Conservation</li> <li>Characteristics, ecological functions, management and conservation of wetlands.</li> <li>Envi 111(Principles of Environmental Management)</li> <li>3 units (3 hrs/week; 2 lec, 3 lab)</li> <li>The course shall enable the students to appreciate the ecological, social and economic value of wetlands. They</li> </ul>
31 32 33 34 35 36 37 38 39 40 41 42 43	Course Number Course Title Course Description Prerequisite Credit Units	<ul> <li>Students shall understand the history of human civilization, especially of Southeast Asia and man's increasing impact on the environment. Social factors leading to overpopulation and urbanization will be identified and discussed in the context of the relationship of development and environmental degradation.</li> <li>Envi 119</li> <li>Wetlands Management and Conservation</li> <li>Characteristics, ecological functions, management and conservation of wetlands.</li> <li>Envi 111(Principles of Environmental Management)</li> <li>3 units (3 hrs/week; 2 lec, 3 lab)</li> <li>The course shall enable the students to appreciate the</li> </ul>

## VIII. EXISTING LABORATORY FACILITIES

	Quantity	Unit
1. Refrigerator	2	Unit
2. Oven	2	Unit
3. Gas Range	1	Unit
4. Analytical Balance	2	Set
5. Spring Balance, 25 kg capacity	2	Set
6. Spring Balance, 30 kg capacity	2	Set
7. Weighing Scale, 30 kg capacity	2	Set
8. Engineer's Transit & Accessories	1	Set
9. Surveyor's Tape	2	Pc
10. Microscope	10	
[10] [10] [10] [10] [10] [10] [10] [10]	경영화 시간 그는 사람들이 가는 그 그 그 그 때문에 가는 것이 없었다.	Unit
11. Commonly used glassware, graduated cylinders, flasks,	5 each size	Pc
beakers		
12. Overhead Projector	1	Unit
13. Differential Hoist Pulley	. 1	Unit
14. Grinder, Bench Mounted	1	Unit
15. Grease Injector	1	Unit
16. Electric Drill, ½" diam.	1	Unit
17. Battery Charger, 6 – 12 volts	3	Unit
18. ACDC Power Supply	1	Unit
19. Computer	4	Unit

# List of additional laboratory equipment in the cooperating departments in the Main Campus which can be used by BSEM students

1 nU motoro	2	
1. pH meters	3	units
2. Spectrophotometers	2	/ units \
3. Digesters*	1	/ unit \
3. Fume hoods	3	/ units \
4. Shakers	2	units \
5. Conductivity meter	1	unit · \
6. Hot plates	5	units
7. Furnaces	2	units =
8. Analytical balances	2	\ units /
9. Atomic absorption spectrophotometer	1	\ unit /

## IX. FACULTY PROFILE

Name of Faculty	Degree	Speciali- zation	Subject(s) to be handled
A. CORE STAFF		Zacion	
1. Eppie N. Katangkatang	BS Biology	Biology	Envi 111 Envi 117 Envi 124 Envi 200
2. Obdulio R. Masendo	BSIE (Electricity) BSCE	Engineering	Envi 129
3. Lilibeth G. Miralles	BS Ag Eng'g MA Ed (Educ Mgt)	Ag Eng'g Ed Mgt	Envi 112 Envi 129 Envi 199 Envi 200
4. Manuel S. Rona	MS Ag Dev Ed PhD (Educ Mgt) Bachelor of Laws	Ag Ed & Dev Ed Mgt Law	Envi 113 Envi 125
5. Marichu M. Padayao	BS Ag Econ M Management	Ag Econ Amanagement	Envi 123 Envi 199 Envi 200
6. Rodrigo G. Caduhay	BS Ag Ed	Ag Ed -	Envi 113 Envi 199
7. Alfredo Porcare	MS	Animal Sci.	Envi 113 Envi 198 Envi 200
B. AFFILIATE FACULT	<u>Y</u>		
1. Victor B. Asio	PhD	Soil Science & Geo-ecology	Envi 114 Envi 117 Envi 129 Envi 200
2. Buenaventura B. Dargantes	PhD	Socio-Ecology	Envi 113 Envi 122 Envi 200
3. Marita Galinato	MS	Plant Ecology	Envi 117
4. Teofanes Patindol	PhD	Environmental Science	Envi 122
5. Justino M. Quimio	PhD	Vegetation Science	Envi 111 Envi 200
6. Paciencia P. Milan	PhD	Biology	Envi 115 Envi 122 Envi 200

7. Bernadette P. Germano	PhD .	Marine Ecology	Envi 115 Envi 200
8. Pastor P. Garcia	PhD	Agricultural Engineering	Envi 121 Envi 129 Envi 200
9. Felix Salas	PhD	Environmental Chemistry	Envi 116 Envi 200
10. Delsergs J. M. Abit	MD		Envi 124
11. Reineria Tan*	MD		Envi 124
12. Lydia Balongga**	MD		Envi 124

<sup>\*</sup> with RHU-Alang-alang

<sup>\*\*</sup> with the Schisto Research and Control Center in Palo Leyte

# Appendix 1. Survey of the course preferences of the graduating High School students within the immediate service area of LSU-AC (upper 30% of the Graduating Classes for SY 2002-2003)

Table 1. Number of student-respondents per high school included in the survey

Name of High School	Number of Respondents	
San Miguel National High School (SMNHS)	25	
2. Astorga National High School (AsNHS)	15	
3. Sta. Cruz National High School (SCNHS)	10	
4. Holy Trinity College (HTC)	12	
5. Alangalang National High School (ANHS)	28	
6. Notre Dame of Jaro (NDJ)	24	
7. Granja Kalinawan National High School (GKNHS)	28	
Total	142	

Table 2. Gender of the student-respondents

Gender	Number	Percentage
Male	40	28
Female	102	72
Total	142	100

Table 3. Extent of interest of student respondents to enroll in proposed courses of LSU-AC.

Proposed Course/Program	No Response	Not Interested	Interested	Rank
BS in Environmental     Management (BSEM)	4 (3%)	58 (41%)	80 (56%)	2
2. BS in Environmental Technology (BSET)	3 (2%)	55 (39%)	84 (59%)	1
3. Bachelor of Secondary Education (BSEd)	2 (1%)	72 (51%)	68 (48%)	5
4. Bachelor of Elementary Education (BEEd)	5 (4%)	68 (48%)	69 (49%)	4
5. BS Agricultural Technology (BSAT)	5 (4%)	67 (47%)	70 (49%)	3

\* Multiple Response