CIVIL ENGINEERING
PROGRAM CATALOG
2024 EDITION

Contents

NWSSU VISION

The premier technological university in the region providing transformative education where graduates are globally competitive, innovative, and responsive to the demands of a changing world

NWSSU MISSION

NwSSU shall lead in providing highly technical and professional education and lifelong learning in the trade, fishery, agriculture, science, education, commerce, engineering, forestry, nautical, and other emerging programs in the digital age. It shall generate cutting-edge technology and undertake sustainable community development in accordance with the university mandates, thrusts, and directions

NWSSU QUALITY POLICY

Northwest Samar State University commits to provide excellent, relevant, and quality instruction, research, extension, and production by adhering to regulatory and statutory requirements and pledging to continually improve its Quality Management System, thereby satisfying client needsand producing world-class professionals.

NWSSU CORE VALUES

Resilience
Integrity
Service
Excellence

COLLEGE OF ENGINEERING & ARCHITECTURE'S

GOALS

The College of Engineering and Architecture shall spearhead in the holistic development of students and achieve a status capable of administering effectively outcomes-based education, research, and extension services that meet professional and technical needs of local and international industries.

INSTITUTIONAL

GRADUATE OUTCOMES

Creative and Critical Thinkers
Life-long Learners
Effective Communicators
Morally and Socially Upright Individuals

NATURE OF THE FIELD STUDY

Civil engineering is a profession that applies the basic principles of science in conjunction with mathematical and computational tools to solve problems associated with developing and sustaining civilized life on our planet. Civil Engineering works are generally one-of-a-kind projects; they are often grand in scale; and they usually require cooperation among professionals of many different disciplines. The completion of a civil engineering project involves the solution of technical problems in which information from numerous sources and myriad non-technical factors play a significant role. Some of the most common examples of civil engineering works include bridges, buildings, dams, airports and hangars, ports and harbors, highways and railways, tunnels, river and shore improvements, lighthouses, dry docks, irrigations, flood protection, drainage, water supply, and towers.

PROFESSIONS/CAREERS FOR GRADUATES

The scope of the practice of Civil Engineering is defined in the Civil Engineering Law of 1950 or R.A. 544 and embrace services in the form of consultation, design, preparation of plans, specifications, estimates, erection, installation and supervision of the construction of streets, bridges, highways, railroads, airports, and hangars, port works, canals, river and shore improvements, lighthouses, and dry docks; buildings, fixed structures for irrigation, flood protection, drainage, water supply and sewerage works; demolition of permanent structures; and tunnels.

MEET THE FACULTY

OTILIA G. TADUYO
Assistant Professor I

Earned Units in Master in Engineering major in Water Resource and Environment

Length of Service: 34years

ROMEO B. SANTOS
Associate Professor V

Faculty Association
Vice President

Doctor of Management
Master in Engineering

Length of Service: 33years

ERWIN B. MIANO
Instructor III

Completed Academic Requirements in Master in Engineering major in Engineering Management

Length of Service: 21years

MEET THE FACULTY

MARLON D. SOBREVIGA
Assistant Professor IV

SPFIDO Director

Master in Engineering major in Engineering Management

Length of Service: 20years

TEODORO A. AMATOSA
Assistant Professor I

- Doctor in Engineering major in Water and Wastewter
- Master in Engineering major in Engineering Management

Length of Service: 16years

MARIANNE LOU A. PALOMAR
Instructor III

Master in Engineering major in Engineering Management

Length of Service: 11years

MEET THE FACULTY

DINAH FE T. OLITAN
Instructor II

BSCE Program Chair

Master in Engineering major in Engineering Management

Length of Service: 7years

ANGEL MARY CRIS S. ROSALES
Instructor I

Completed Academic Requirements in Master in Engineering major in Engineering Management

Length of Service: 2years

LELAND G. AFUNDAR
Instructor I

Completed Academic Requirements in Master in Engineering major in Engineering Management

Length of Service: 1year

CURRICULUM CHECKLIST

(SY 2023 – 2024)

First year - 1st Sem.

Course Code	Course Description	Hours		Units	Pre-Re/Co-Re
		Lec	Lab		
B1	Engineering Algebra	3	0	3	None
B2	Engineering Trigonometry	3	0	3	None
B3	Solid Mensuration	3	0	3	None
B4	Analytic Geometry	3	0	3	None
GE 7	Science, Technology & Society	3	0	3	None
GE 4	Mathematics in the Modern World	3	0	3	None
ChemE	Chemistry for Engineers	3	3	4	None
CE 112	Civil Engineering Orientation	2	0	2	None
GEC Elec 1	Living in the IT Era	3	0	3	None
PE1	Movement Competency Training (PATHFit 1)	2	0	2	None
NSTP 1	National Service Training Program 1	3	0	3	None
TOTAL HOURS: 34		**31**	**3**	**32**	

First year - 2nd Sem.

Course Code	Subject Description	Hours		Units	Pre-Re./Co-Re.
		Lec	Lab		
GE 3	The Contemporary World	3	0	3	None
GE 1	Understanding the Self	3	0	3	None
Math 1	Calculus 1	3	0	3	B1, B2, B3, B4
CE 121	Engineering Drawings and Plans	0	3	1	None
ES 1	Computer Fundamentals and Programming	0	6	2	None/ Math 1
GEC Elec 2	The Entrepreneurial Mind	3	0	3	None
PE 2	Exercise-Based Fitness Activities (PATHFit 2)	2	0	2	None
NSTP 2	National Service Training Program 2	3	0	3	NSTP 1
TOTAL HOURS: 26		**17**	**9**	**20**	

First year - Summer

Course Code	Subject Description	Hours		Units	Pre-Re/Co-Re
		Lec	Lab		
Math 2	Calculus 2	3	0	3	Math 1
PhysE 1	Physics for Engineers (Calculus Based)	3	3	4	Math 1
TOTAL HOURS: 9		**6**	**3**	**7**	

Second year - 1st Sem.

Course Code	Subject Description	Hours		Units	Pre-Re./Co-Re.
		Lec	Lab		
Math 4	Differential Equations	3	0	3	Math 2
ES 2	Computer-Aided Drafting	0	3	1	ES 1
CE213	Statics of Rigid Bodies	3	0	3	Math 2, PhysE
CE214	Fundamental of Surveying	3	3	4	CE 121
BES 4	Engineering Economics	3	0	3	2nd yr. Standing
BES 6	Engineering Management	2	0	2	2nd yr. Standing
GE 5	Purposive Communication	3	0	3	None
GE 2	Readings in Philippine History	3	0	3	None
PE 3	Group Activities (PATHFit 3)	2	0	2	None
TOTAL HOURS: 28		**22**	**6**	**24**	

Second year - 2nd Sem.

Course Code	Subject Description	Hours		Units	Pre-Re./Co-Re.
		Lec	Lab		
Math 3	Engineering Data Analysis	3	0	3	Math 2
CE 222	Geology for Civil Engineers	2	0	2	ChemE
CE 242	Dynamics of Rigid Bodies	2	0	2	CE 213
CE 224	Mechanics of Deformable Bodies	4	0	4	CE 213
CE 223	Construction Materials and Testing	2	3	3	CE 213/ CE224
GE 6	Art Appreciation	3	0	3	None
RIZAL	Life and Works of Rizal	3	0	3	None
PE 4	Sports (PATHFit 4)	2	0	2	None
MATH 5	Advanced Engineering Mathematics	3	0	3	Math 4
TOTAL HOURS: 27		**24**	**3**	**25**	

Third year - 1st Sem.

Course Code	Subject Description	Hours		Units	Pre-Re./Co-Re.
		Lec	Lab		
CE 314	Structural Theory	3	3	4	CE 242, CE 224
CE 313	Highway and Railroad Engineering	3	0	3	CE 214
CE 333	Engineering Utilities 1	3	0	3	PhysE
CE 353	Engineering Utilities 2	3	0	3	PhysE
CE 373	Numerical Solutions for CE Problems	2	3	3	Math 4
GE 8	Ethics	3	0	3	None
GEC Elec 3	Indigenous Creative Crafts	3	0	3	None
TOTAL HOURS: 26		**20**	**6**	**22**	

Third year - 2nd Sem.

Course Code	Subject Description	Hours		Units	Pre-Re./Co-Re.
		Lec	Lab		
BES 5	Technopreneurship 101	3	0	3	3rd yr. Standing
CE 323	Building Systems Design	2	3	3	CE 121
CE 343	Principles of Steel Design	2	3	3	CE 223, CE 314
CE 324	Principles of Reinforced/Pre-stressed Concrete	3	3	4	CE 223, CE 314
CE 322	Hydrology	2	0	2	3rd yr. Standing
CE 325	Hydraulics	4	3	5	3rd yr. Standing
CE 342	CE Laws, Ethics, and Contracts	2	0	2	3rd yr. Standing
CE 362	CE Project 1	1	3	2	3rd yr. Standing
TOTAL HOURS: 34		**19**	**15**	**24**	

Third year - Summer

Course Code	Subject Description	Hours		Units	Pre-Re./Co-Re.
		Lec	Lab		
CE OJT	On the Job Training	2	3	3	4th yr. Standing
TOTAL HOURS: 5		**2**	**3**	**3**	

Fourth year - 1st Sem.

Course Code	Subject Description	Hours		Units	Pre-Re./Co-Re.
		Lec	Lab		
CE 412	CE Project 2	1	3	2	CE 362
CE 432	Correlational Course 1	0	6	2	4th yr. Standing
CE 413	Principles of Transportation Engineering	3	0	3	CE 313
CE 414	Geotechnical Engineering 1 (Soil Mechanics)	3	3	4	CE222, CE224
ST-COURSE 1	Specialized Course 1: Project Construction and Management	2	3	3	4th year standing
ST-COURSE 2	Specialized Course 2: Advanced Construction Method & Equipment	2	3	3	4th year standing
ST-COURSE 3	Specialized Course 3: Construction Cost Engineering	2	3	3	4th year standing
TOTAL HOURS: 34		**13**	**21**	**20**	

Fourth year - 2nd Sem.

Course Code	Subject Description	Hours		Units	Pre-Re./Co-Re.
		Lec	Lab		
CE 422	Correlational Course 2	0	6	2	4th yr. Standing
CE 442	Quantity Surveying	1	3	2	CE323
CE 462	Computer Softwares in Structural Analysis	0	6	2	4th yr. Standing
CE 423	Foundation and Retaining Wall Design	2	3	3	4th yr. Standing
CE 443	Construction Methods and Project Management	2	3	3	4th year standing
ST-COURSE 4	Specialized Course 4: Data Base Management Construction	2	3	3	4th year standing
ST-COURSE 5	Specialized Course 5: Construction Occupational Safety and Health	2	3	3	4th year standing
TOTAL HOURS: 36		**9**	**27**	**18**	

CURRICULUM CHECKLIST

(SY 2024- 2025)

First year - 1st Sem.

Course Code	Course Description	Hours		Units	Pre-Re/Co-Re
		Lec	Lab		
B1	Engineering Algebra	3	0	3	None
B2	Engineering Trigonometry	3	0	3	None
B3	Solid Mensuration	3	0	3	None
B4	Analytic Geometry	3	0	3	None
GE 4	Mathematics in the Modern World	3	0	3	None
ChemE	Chemistry for Engineers	3	3	4	None
CE 112	Civil Engineering Orientation	2	0	2	None
PE1	Movement Competency Training (PATHFit 1)	2	0	2	None
NSTP 1	National Service Training Program 1	3	0	3	None
TOTAL HOURS: 28		**25**	**3**	**26**	

First year - 2nd Sem.

Course Code	Subject Description	Hours		Units	Pre-Re./Co-Re.
		Lec	Lab		
GE 3	The Contemporary World	3	0	3	None
GE 1	Understanding the Self	3	0	3	None
Math 1	Calculus 1	3	0	3	B1, B2, B3, B4
CE 121	Engineering Drawings and Plans	0	3	1	None
ES 1	Computer Fundamentals and Programming	0	6	2	None/ Math 1
GEC Elec 1	Living in the IT Era	3	0	3	None
GEC Elec 2	The Entrepreneurial Mind	3	0	3	None
PE 2	Exercise-Based Fitness Activities (PATHFit 2)	2	0	2	None
NSTP 2	National Service Training Program 2	3	0	3	NSTP 1
TOTAL HOURS: 29		**20**	**9**	**23**	

First year - Summer

Course Code	Subject Description	Hours		Units	Pre-Re/Co-Re
		Lec	Lab		
Math 2	Calculus 2	3	0	3	Math 1
PhysE 1	Physics for Engineers (Calculus Based)	3	3	4	Math 1
TOTAL HOURS: 9		**6**	**3**	**7**	

Second year - 1st Sem.

Course Code	Subject Description	Hours		Units	Pre-Re./Co-Re.
		Lec	Lab		
Math 4	Differential Equations	3	0	3	Math 2
ES 2	Computer-Aided Drafting	0	3	1	ES 1
CE213	Statics of Rigid Bodies	3	0	3	Math 2, PhysE
CE214	Fundamental of Surveying	3	3	4	CE 121
BES 4	Engineering Economics	3	0	3	2nd yr. Standing
BES 6	Engineering Management	2	0	2	2nd yr. Standing
GE 5	Purposive Communication	3	0	3	None
GE 2	Readings in Philippine History	3	0	3	None
PE 3	Group Activities (PATHFit 3)	2	0	2	None
TOTAL HOURS: 28		**22**	**6**	**24**	

Second year - 2nd Sem.

Course Code	Subject Description	Hours		Units	Pre-Re./Co-Re.
		Lec	Lab		
Math 3	Engineering Data Analysis	3	0	3	Math 2
CE 222	Geology for Civil Engineers	2	0	2	ChemE
CE 242	Dynamics of Rigid Bodies	2	0	2	CE 213
CE 224	Mechanics of Deformable Bodies	4	0	4	CE 213
CE 223	Construction Materials and Testing	2	3	3	CE 213/ CE224
GE 6	Art Appreciation	3	0	3	None
GE 7	Science, Technology & Society	3	0	3	None
RIZAL	Life and Works of Rizal	3	0	3	None
PE 4	Sports (PATHFit 4)	2	0	2	None
TOTAL HOURS: 27		**24**	**3**	**25**	

Third year - 1st Sem.

Course Code	Subject Description	Hours		Units	Pre-Re./Co-Re.
		Lec	Lab		
CE 314	Structural Theory	3	3	4	CE 242, CE 224
CE 313	Highway and Railroad Engineering	3	0	3	CE 214
CE 333	Engineering Utilities 1	3	0	3	PhysE
CE 353	Engineering Utilities 2	3	0	3	PhysE
CE 373	Numerical Solutions for CE Problems	2	3	3	Math 4
GE 8	Ethics	3	0	3	None
GEC Elec 3	Indigenous Creative Crafts	3	0	3	None
TOTAL HOURS: 26		**20**	**6**	**22**	

Third year - 2nd Sem.

Course Code	Subject Description	Hours		Units	Pre-Re./Co-Re.
		Lec	Lab		
BES 5	Technopreneurship 101	3	0	3	3rd yr. Standing
CE 323	Building Systems Design	2	3	3	CE 121
CE 343	Principles of Steel Design	2	3	3	CE 223, CE 314
CE 324	Principles of Reinforced/Pre-stressed Concrete	3	3	4	CE 223, CE 314
CE 322	Hydrology	2	0	2	3rd yr. Standing
CE 325	Hydraulics	4	3	5	CE 314
CE 342	CE Laws, Ethics, and Contracts	2	0	2	3rd yr. Standing
CE 362	CE Project 1	1	3	2	CE 223, CE 314
TOTAL HOURS: 34		**19**	**15**	**24**	

Third year - Summer

Course Code	Subject Description	Hours		Units	Pre-Re./Co-Re.
		Lec	Lab		
CE OJT	On the Job Training	2	3	3	4th yr. Standing
TOTAL HOURS: 5		**2**	**3**	**3**	

Fourth year - 1st Sem.

Course Code	Subject Description	Hours		Units	Pre-Re./Co-Re.
		Lec	Lab		
CE 412	CE Project 2	1	3	2	CE 362
CE 413	Principles of Transportation Engineering	3	0	3	CE 313
CE 414	Geotechnical Engineering 1 (Soil Mechanics)	3	3	4	CE222, CE224
CE 432	Correlational Course 1	4	0	4	4th yr. Standing
CE 433	Reinforced Concrete Design	2	3	3	CE 324
ST-COURSE 1	Specialized Course 1: Project Construction and Management	3	3	4	4th year standing
ST-COURSE 2	Specialized Course 2: Advanced Construction Method & Equipment	3	0	3	4th year standing
ST-COURSE 3	Specialized Course 3: Construction Cost Engineering	3	0	3	4th year standing
TOTAL HOURS: 34		**22**	**12**	**26**	

Fourth year - 2nd Sem.

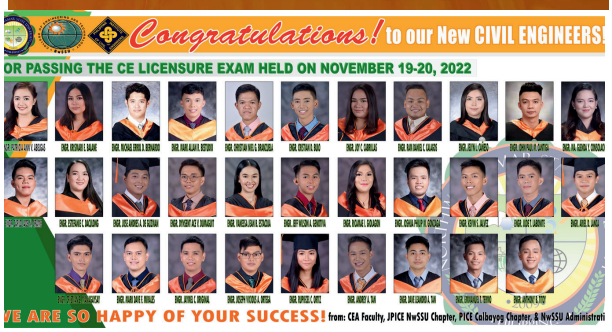
Course Code	Subject Description	Hours		Units	Pre-Re./Co-Re.
		Lec	Lab		
CE 422	Correlational Course 2	4	0	4	4th yr. Standing
CE 442	Quantity Surveying	1	3	2	CE323
CE 462	Steel Design	2	3	3	CE 343
CE 423	Foundation and Retaining Wall Design	2	3	3	4th yr. Standing
CE 443	Construction Methods and Project Management	3	0	3	4th year standing
ST-COURSE 4	Specialized Course 4: Data Base Management Construction	3	0	3	4th year standing
ST-COURSE 5	Specialized Course 5: Construction Occupational Safety and Health	3	0	3	4th year standing
TOTAL HOURS: 27		**18**	**9**	**21**	

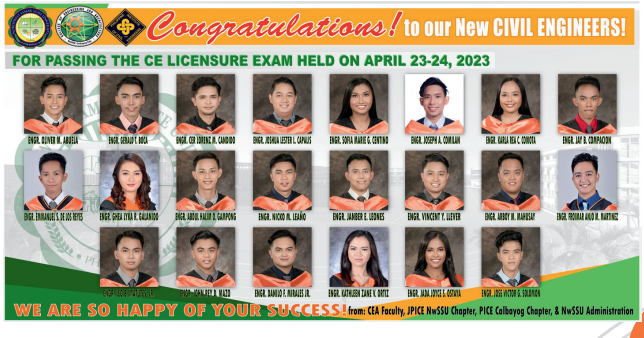
PROGRAM EDUCATIONAL OBJECTIVES

1 Graduates will pass the licensure examination for Civil Engineers.

NOVEMBER 2024 CIVIL ENGINEER LICENSURE EXAMINATION TOP 30 SCHOOLS IN THE PHILIPPINES (WITH 50 OR MORE EXAMINEES)					
RANK	SCHOOL	OVERALL PERFORMANCE			
		PASSED	FAILED	TOTAL	% PASSED
1	UNIVERSITY OF THE PHILIPPINES - DILIMAN	82	6	88	**93.18%**
2	CARLOS HILADO MEMORIAL STATE UNIV. - TALISAY (FOR CCH MSC)	53	5	58	**91.38%**
3	PAMANTASAN NG LUNGSOD NG MAYNILA	68	10	78	**87.18%**
4	PANGASINAN STATE UNIVERSITY - URDANETA	79	21	100	**79.00%**
		110	35	145	**75.86%**
		109	36	145	**75.17%**
		66	23	89	**74.16%**
		61	27	88	**69.32%**
		96	45	141	**68.09%**
		53	26	79	**67.09%**
		103	56	159	**64.78%**
		47	28	75	**62.67%**
		47	29	76	**61.84%**
24	SOUTHERN LEYTE STATE UNIVERSITY - SOGOD	33	28	61	**54.10%**
25	XAVIER UNIVERSITY	53	45	98	**54.08%**
26	MAPUA UNIVERSITY - MANILA	176	150	326	**53.99%**
27	MARINDUQUE STATE COLLEGE - BOAC	47	41	88	**53.41%**
28	UNIVERSITY OF BATANGAS	74	65	139	**53.24%**
29	UNIVERSITY OF MINDANAO - DAVAO CITY	161	148	309	**52.10%**
30	NORTHWEST SAMAR STATE UNIVERSITY - CALBAYOG	33	31	64	**51.56%**

YEAR	MONTH	First Timers			National Passing Percentag
		Passed	Failed	Passing Percentage	
2024	NOVEMBER	21	13	61.76% ↑	37.07%
	APRIL	10	10	50.00% ↑	39.27%
2023	NOVEMBER	25	28	47.17% ↑	33.26%
	APRIL	16	6	72.73% ↑	34.76%
2022	NOVEMBER	22	24	47.83% ↑	39.34%
	MAY	8	23	25.81% ↓	42.35%





PROGRAM EDUCATIONAL OBJECTIVES

Graduates will achieve a high level of technical expertise so that they are able to succeed in positions in civil engineering practice or research, and in other fields they chose to pursue.

2

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Swell Classification Analysis for Re-engineering Expansive Soil using Agricultural Waste Materials

Jovelyn D. Bastasa[a], April Joy B. Roxas[a], Kaeselle D. Sagayap[a], Roi Rafael L. Salurio[a], Jayzle O. Sampayan[a], Hanjin L. Taniñas[a], Marlon D. Sobreviga[a], Dinah Fe T. Olitan[a,*], Teodoro A. Amatosa, Jr.[a,b]

[a]College of Engineering and Technology, Northwest Samar State University, Calbayog City, Samar 6710 Philippines.

[b]Engineering Graduate Program, School of Engineering, University of San Carlos, Talamban Campus, Cebu City, 6000 Philippines.

Corresponding Author

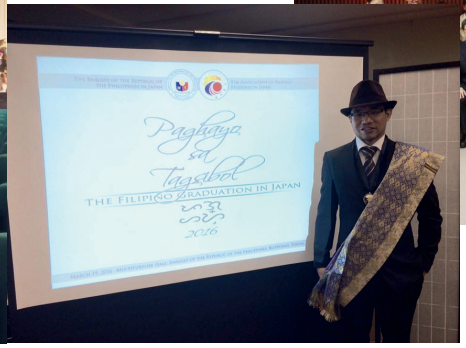
PROGRAM EDUCATIONAL OBJECTIVES

3 Graduates will produce engineering designs that are based on sound principles that consider functionality, aesthetics, safety, cost effectiveness and sustainability.




4 Graduates will pursue lifelong learning such as graduate studies and other professional education.


Rommel Cui




Jerwil Delabajan

PROGRAM OUTCOMES

5 Graduates will engage in professional service, such as participation in professional society and community service.

PICE Calbayog Annual General Assembly

PROGRAM OUTCOMES

6 Graduates will fulfill values, professional and ethical responsibilities in the practice of civil engineering, including social, environmental and economic considerations.

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Swell Classification Analysis for Re-engineering Expansive Soil using Agricultural Waste Materials

Jovelyn D. Bastasa[a], April Joy B. Roxas[a], Karselle D. Sagayap[a], Roi Rafael L. Saharin[a], Jayde O. Sampayan[a], Haujin L. Tanilan[a], Marlon D. Sobreviga[a], Dinah Fe T. Olitan[a,*], Teodoro A. Amatosa, Jr.[a,b]

[a]College of Engineering and Technology, Northwest Samar State University, Calbayog City, Samar 6710 Philippines.
[b]Engineering Graduate Program, School of Engineering, University of San Carlos, Talamban Campus, Cebu City, 6000 Philippines.
Corresponding Author

Abstract

Expansive Soils is the problem that does not only reach the required soil engineering properties but also its effect on the environment just because of the clay mineral constituents, that makes them display the swell classification. Looking for the best stabilizer to overcome problems in construction caused by weak soil is of significant interest. The objective of this study was to classify the effect of the properties of expansive soil through re-engineering using rice husk ash (RHA) and eggshell powder (ESP) as agricultural waste materials. The investigation provides on eleven (11) mix design with different percentage content of RHA, Chicken Egg Shell Powder (CESP) and Duck Egg Shell Powder (DESP) that has been tested. This paper thoroughly discussed their effectiveness for stabilizing expansive soils. Test for direct shear, Atterberg limit and Unconfined Compressive Strength (UCS) was conducted. Results revealed that adding of RHA along with CESP has considerably improved the unconfined compressive strength and shear strength of the soil performance. Moreover, the addition of RHA and CESP reduced the swell potential of the expansive clay soil.

Keywords: waste materials, swell classification, expansive soil, rice husk ash (RHA), eggshell powder (ESP)

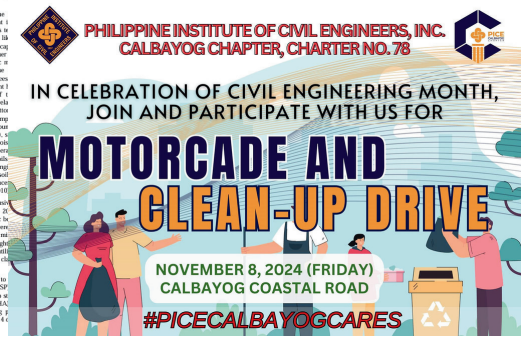
1. INTRODUCTION

In the civil engineering field of specialization, various kinds of soils are being utilized; however, application in construction are suitable, by their natural form soil deposit. Whereas, without treatment, others are unsuitable, and become soil problems. Before they can undergo the applicable loads using upper structures, soils need to be dig and replaced on their properties should be modified. Expansive soils considered as typical problematic soils which are observed continuously worldwide, other than the arctic regions (Steinberg, 2000). Soil is the necessary foundation for any civil engineering structure. It is required to bear the loads founded on them without undergoing failure. In some places, the soil may be weak which cannot resist the loads that rested on them leading to the break-up of roadways, channel and reservoir linings, pavements, building foundations, water lines, irrigation systems, membe

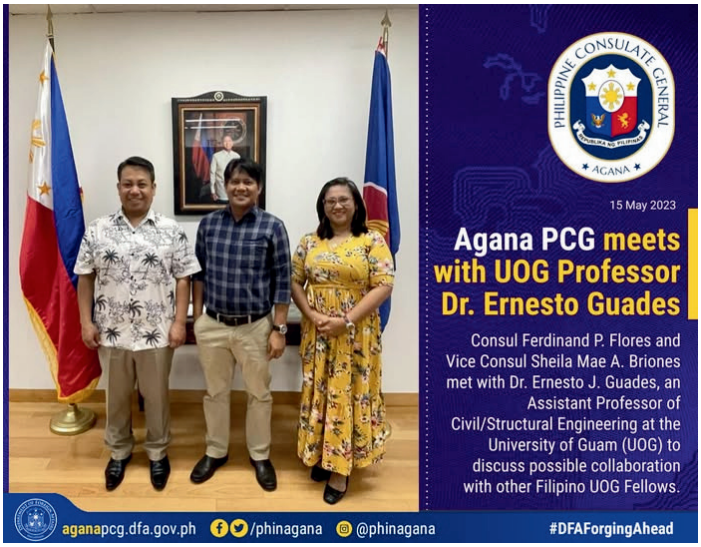
One of the ancient technique demonstrated in large amount roots, animals, and birds. This process desire soil properties lik shear strength, and bearing ca serve particles to lock together particles in a uniform analytic 2002). Natural fibers are the improvement discover from trees applications, soil reinforcement because of the advantage of availability, secure handling, rela environmentally friendly (Matta works of literature reported imp has caused a significant amou States (Jones and Holtz, 1973). volume change, sensitive to moi from fine-grained clay mineral characteristics of expansive soils to cost implication, geodetic engi the properties of fine-grained soil comparison with the soil replace Centre, 2007; Hussey et al., 2010

Some existing studies of expansive husk ash (Rehan Raj R et al. 2 made use of plastic and plastic bo (Kumar et al., 2017). There were ash and fly ash combination mi percentages with the dry weight Furthermore, studies were also quarry dust in improving the cla Nimtsha. 2016).

However, no study was found to by adding eggshell powder (ESP this, the researchers decided to st materials of rice husk ash (RHA) on the index and engineering p reengineering using 4, 7, and 14



7 Graduates will be leaders, both in their chosen profession and in other activities.



Margie D. Sobreviga
Former PICE Pres.
Engineering Technology Center Owner

Ramon A. Calagos
District Engineer
Camarines Sur 1st District Engineering Office

Marlon D. Sobreviga
NWSSU SPFIDO Director

PROGRAM OUTCOMES

1. Apply knowledge of mathematics and science to solve civil engineering problems.
2. Design and conduct experiments, as well as to analyze and interpret data.
3. Design a system, component, or process to meet desired needs within realistic constraints, in accordance with standards.
4. Function in multidisciplinary and multi-cultural teams.
5. Identify, formulate, and solve civil engineering problems.
6. Understand professional and ethical responsibility.
7. Communicate effectively civil engineering activities with the engineering community and with society at large.
8. Understand the impact of civil engineering solutions in a global, economic, environmental, and societal context.
9. Recognize the need for, and engage in life-long learning.
10. Know on contemporary issues.
11. Use techniques, skills, and modern engineering tools necessary for civil engineering practice.
12. Know and understand engineering and management principles as a member and leader of a team, and to manage projects in a multidisciplinary environment.
13. Understand at least one specialized field of civil engineering practice.

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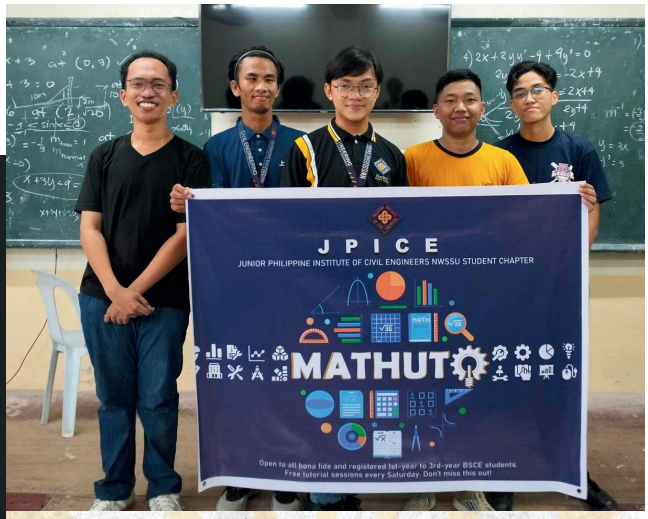
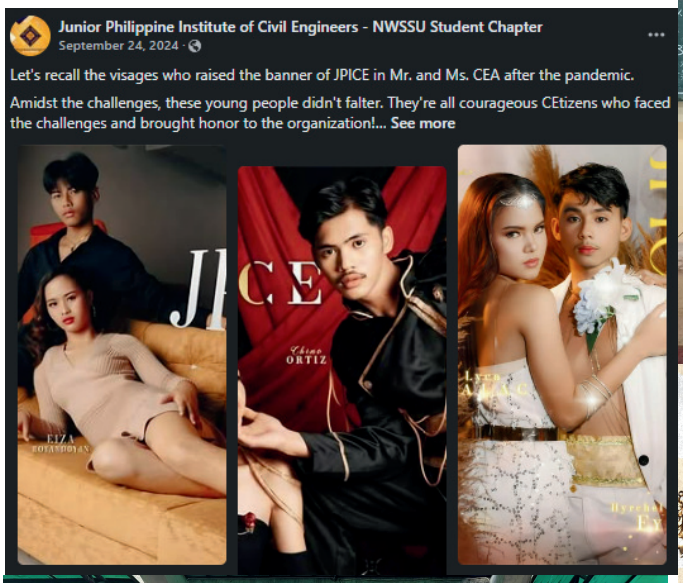
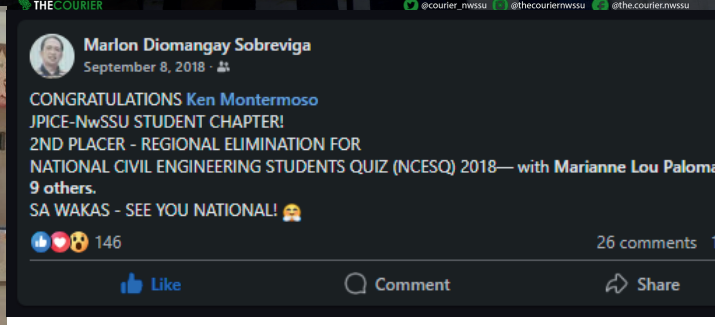




STUDENT COMPETITIONS



THANK YOU!
TO GOD BE THE GLORY!